

ENVIRONMENTAL ASSESSMENT
FINDING OF NO SIGNIFICANT IMPACT

Defense Environmental Restoration Account
(DERA)

Project No. D01MA002714
Nike Site 29
Dighton/Swansea, Massachusetts

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Department of the Army
New England Division, Corps of Engineers
Waltham, Massachusetts 02254-9149

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This EA and FONSI describes the proposed DERA project for Nike Site 29 located in Swansea, MA. Removal of two large buildings, two smaller buildings, several concrete and bituminous pads, a manhole, paving and storage tanks is proposed.		

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NOTE: Pertinent Correspondence is attached.
Federal and State Asbestos regulations are attached. Asbestos
notification form is attached. Asbestos testing results done
by the Corps of Engineers are attached.

I. Introduction

The New England Division of the United States Army Corps of Engineers has examined environmental resources as part of the planning and development of the proposed plan in compliance with the National Environmental Policy Act of 1969, and all appropriate environmental laws and regulations, executive orders, and executive memoranda. This report provides an assessment of environmental impacts of the proposed action and reviews the alternatives considered.

The proposed environmental restoration of Nike Site 29 is within the authority of and meets the criteria of Public Law 98-212 (97 Stat. 1427) which is the public statute that authorizes the Defense Environmental Restoration Account.

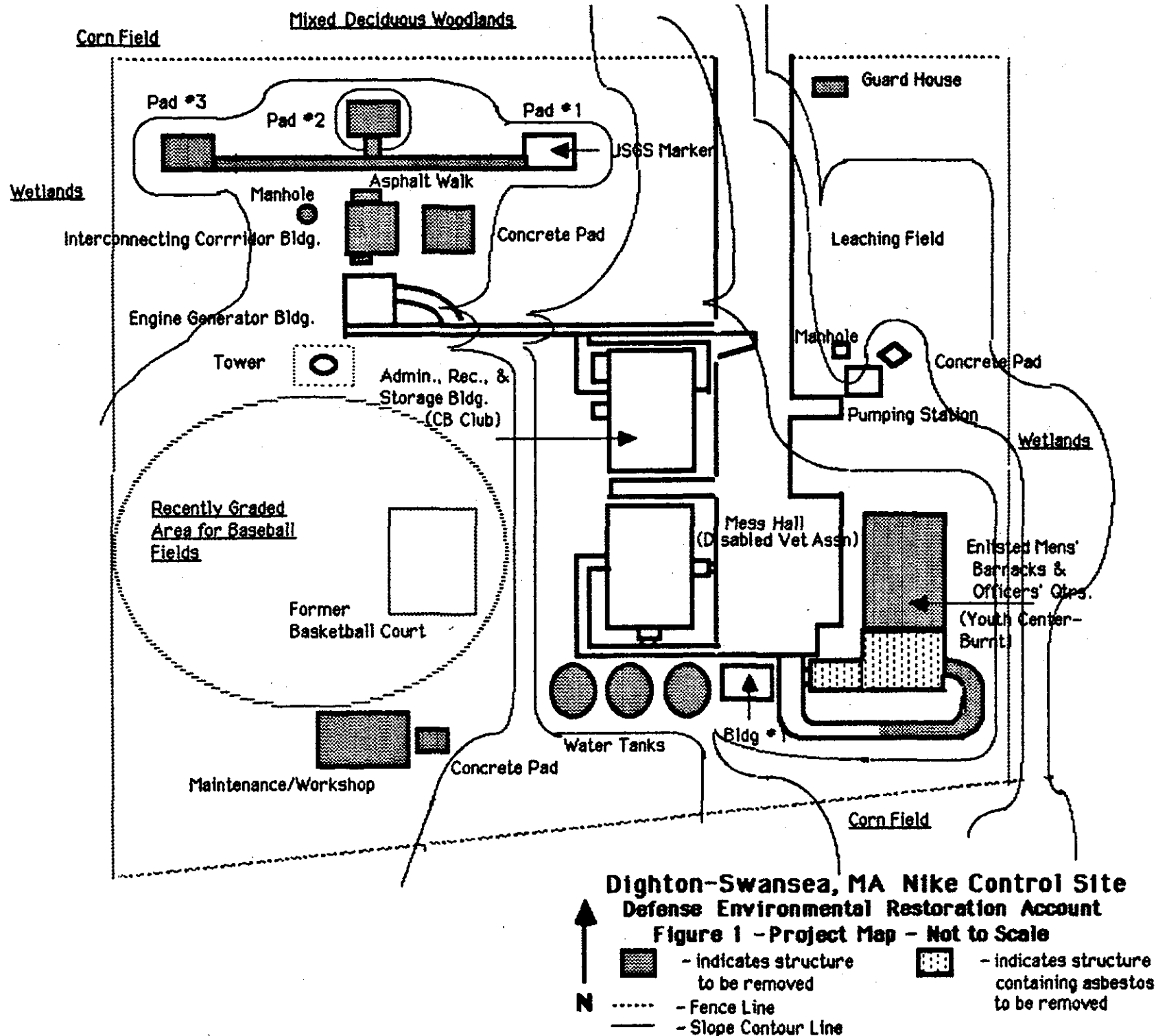
II. Proposed Project Description

The New England Division proposes demolition of dilapidated structures located on the control area of former Nike Site 29 in Swansea, Massachusetts. (Dighton contains the related launcher site.) The structures to be removed consist of two large buildings, two smaller buildings, several concrete and bituminous (paved) pads, a manhole, paving, and three above-ground storage tanks. The structures are aesthetically incompatible with the rest of the control area due to their dilapidated condition. After demolition, the area will be graded and re-seeded with endemic vegetation (most likely to be grass).

The proposed project area occupies a relatively small area which totals roughly 11 1/4 acres (see Figures 1 and 2). One of the buildings which will not be demolished is currently used by a CB Club. A second building to remain intact is used by the Disabled Veteran's Association. The structures near the leaching field will not be disturbed in order to ensure proper functioning of bathroom facilities in the remaining buildings. The area east of and including the former basketball court area pictured in Figure 1, is currently being graded for use as baseball fields (this is not part of the proposed DERA project).

The control area was previously used to coordinate and direct activities at the missile site. Several large structures were used for strategic operations, barracks, officers' quarters, and a mess hall. Smaller concrete buildings were used as a guard shack, water pumping station, and for other miscellaneous purposes.

As part of the discontinuance of the Nike Defense System, the Department of Defense (DOD) reported the control area to the General Services Administration as excess (Report of Excess No. NED-131, dated 26 February 1964). The town of Swansea currently owns the property by a deed dated 18 May 1965. A clause in the deed reserves to the Government use of an access road and contains easements for water and sewerage lines.



III. Purpose and Need for the Proposed Project

The purpose of the proposed Dighton/Swansea DERA project is to demolish potentially unsafe buildings and open manholes. These structures, while not all currently used by the general public, if left in their present condition would present a health and safety hazard. Some of the asbestos found in a portion of the former Youth Center building is friable, and therefore, a potentially hazardous substance (see discussion in Environmental Consequences section).

Although town officials have not declared a final use for the area, Mr. Michael Finglas (Executive Secretary to the Board of Selectmen) and Mr. Michael Ziobro (Town Engineer) feel that the area will ultimately be used for recreation. They would consent to removal of the dilapidated structures, which would also serve in enhancing their efforts toward recreation.

IV. Alternatives

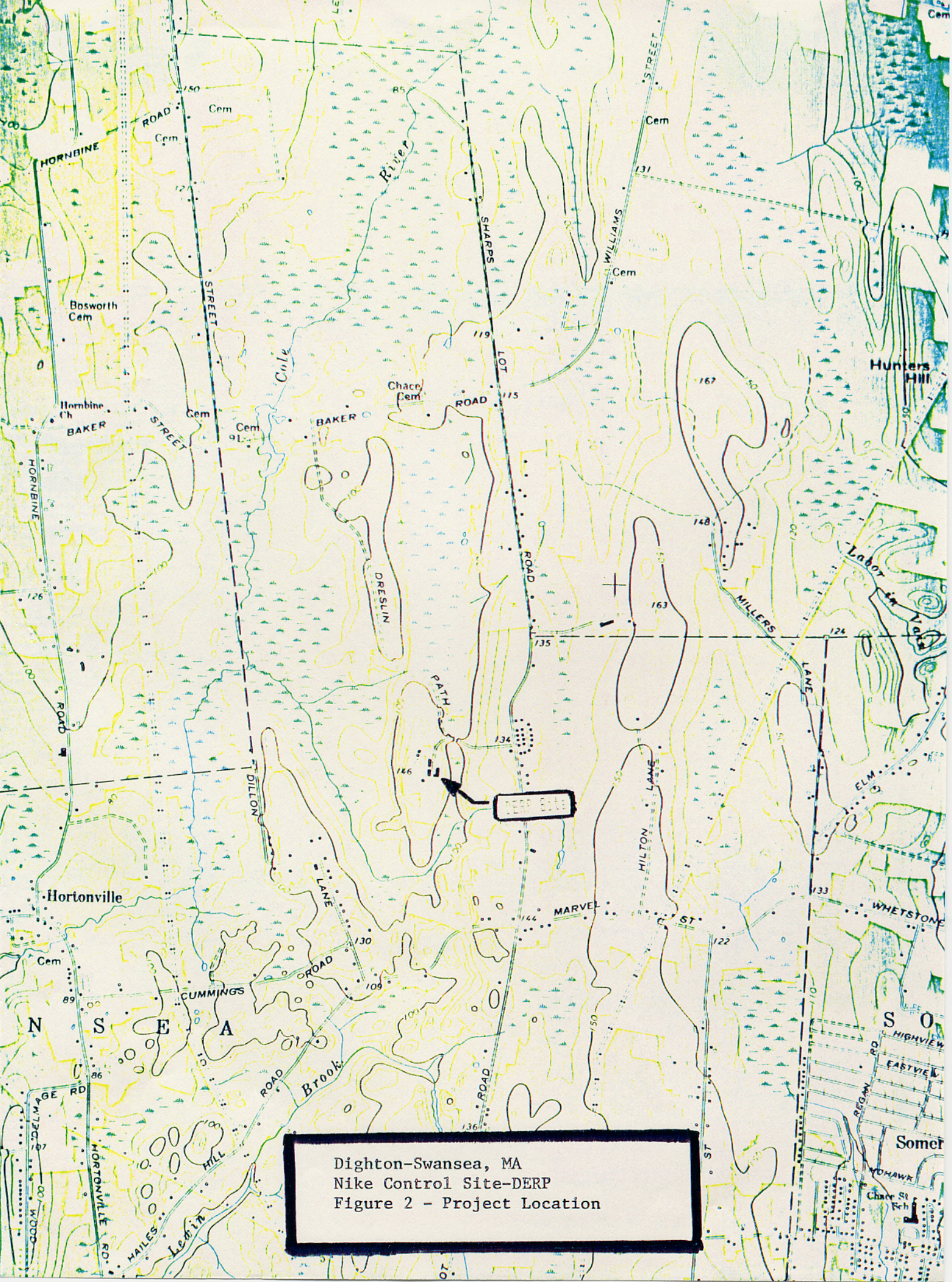
The alternatives to the proposed work include a no action plan. However, if these structures are not removed, they would continue to deteriorate and create hazardous safety conditions at the site. Therefore, this alternative is not considered viable. Since the buildings to be removed are in a dilapidated condition, their value is considered negligible.

Other areas not eligible under the Defense Environmental Restoration Account (DERA) include a launcher area and a housing area. The present owner of the launcher area uses one building as a machine shop and office and other buildings for storage. The owner also plans to convert the old missile silos into commercial storage facilities. Since the owner has a commercially valuable use for the building, the launcher area does not fall under the DERA program. The housing area is still under DOD control, and therefore, also does not fall under the DERA program.

V. Affected Environment

A. General Resources

The structures to be demolished are surrounded by various grasses, shrubs, and trees. Typical upland vegetation found in the proposed project area includes Buttercup (Ranunculus acris), Queen Anne's Lace (Daucus carota), Oxeye Daisy (Chrysanthemum leucanthemum), Red Clover (Trifolium pratense), Switchgrass (Panicum virgatum), Goldenrod (Solidago sempervirens), Sea Ox-eye (Borrichia frutescens), Aster (Aster spp.), Sweetgale (Myrica gale), other wild flowers, various ferns, Milkweed (Asclepias spp.), Sumac (Rhus spp.), Juniper (Juniperus spp.), Red Maple (Acer rubrum), Oak (Quercus spp.), and Cedar (Thuja spp.). Mostly grasses and some shrubs immediately surround the structures.



Dighton-Swansea, MA
Nike Control Site-DERP
Figure 2 - Project Location

This type of habitat supports various species of upland songbirds and small mammals, amphibians, and reptiles. Examples of these include Swallow (Hirundo spp.), Jay (Cyanocitta spp.), Starling (Sturnus spp.), Sparrow (Passer spp.), Crow (Corvus spp.), Squirrel (Sciurus carolinensis), Raccoon (Procyon lotor), Skunk (Mephitis mephitis), and possibly ferral house Cat (Felis catus).

The site is bordered by a cornfield on both the southern and north-western ends; wetlands, after a sharp decline, to the east and west; and a mixed deciduous woodlands to the north. The leaching field and other small areas were covered with the Reed Grass, Calamagrostis spp.. Although Reed Grass is considered a wetland plant, the proposed project area should not be classified as a wetland. The DERP site was selected primarily since it is one of the highest points in Swansea. Wetlands do not evolve in elevated areas.

B. Cultural Resources

The control area (Nike Site PR-29) is located on a knob surrounded by the wetlands associated with the Cole River. The site begins on the knob's crest and runs east on several man-made terraces cut or built on the knob's slope.

Extensive land modification during the construction of the military facility and baseball fields and the moderate to steep slope gradient combine to reduce the potential for any prehistoric sites to essentially nil.

The site was acquired by the Department of Defense in 1955 from Antone and Cora Silvia. During the mid-50's, a number of Nike Ajax batteries were constructed nationwide to protect strategic and industrial areas, i.e. Boston, Providence, Hartford, New London, Bridgeport, and Limestone. The buildings and ancillary structures were of standardized design; placement of the structures varied only slightly from site to site and were determined by the local topography. Coordination and direction of activities at the launcher site in Dighton originated from the Control Area. In 1960, the launcher and radar facilities were modified to accommodate the Nike Hercules. The Nike Defense System was deemed obsolete by the mid-1960's and deactivated.

The Department of Defense reported the Control Area as excess to the General Service Administration in 1964. The Town of Swansea, the current owner, obtained the site directly from the U.S. Government in 1965. Since its acquisition, various groups have and continue to use the site (Battle-ship Cove CB Club, Inc., a local Disabled Veterans Association chapter, a cable TV company, and formerly a Youth Group).

VI. Environmental Consequences

A. General Resources

There will be no significant adverse environmental effects associated with the proposed work. Unavoidable effects associated with normal construction practices will be minimal due to the nature of the project and the disturbed habitat setting. Effects from the demolition and removal of the structures include temporary increases in noise and dust immediately around the site for the duration of the work. Noise pollution produced by the project will be minimal, not significantly affecting any wildlife species at the site. Material removed from the site will be transported to a suitable disposal site and coordinated with the appropriate agencies. The disposal site will be chosen by the Contractor, but subject to the Corps' approval.

Attached to this Environmental Assessment are the results of an asbestos analysis done on six bulk samples sent to Eastern Analytical Laboratories, Incorporated. The analysis has also been included in the plans and specifications for this project. Of this six sources analyzed, only two show a level of high asbestos friability. Friable asbestos material is defined as "any material that contains more than one percent asbestos by weight and that can be crumbled, pulverized, or reduced to a powder, when dry, by hand pressure" (40 CFR, Part 61, Subpart B, Section 61.21). The highly friable asbestos sources identified by the testing are found in one portion of the one burnt building (see Figure 1) and consist of the insulating material from the pipes and ducts and the water tanks, both found in the furnace room.

To be in accordance with the Clean Air Act (see attached letter), the plans and specifications have incorporated the information from the Federal and State Regulations (40 CFR, Part 61, Subpart M) governing the removal and disposal of asbestos. The contractor selected to perform the work will be required to follow these regulations along with other Corps safety precautions outlined in the plans and specifications. (See attached regulations.)

The Division of Occupational Hygiene (DOH), a recommending agency, was contacted through the Environmental Protection Agency's (EPA) recommendation. Applicable suggestions from DOH have also been included in the plans and specifications. (See attached letter.)

The selected Contractor can choose a disposal site; however, the Corps must approve of the site selected. Only then can the Contractor initiate notification correspondence by filling out the attached notification form. Notification will be sent to the following agencies:

United States Environmental Protection Agency
Attention: Ms. Bridget McGuinness
JFK Federal Building - Room 2310
Boston, Massachusetts 02203

and

Massachusetts Department of Environmental Quality Engineering
Attention: Mr. Joe Leary
Lakeville Hospital
Main Street
Lakeville, Massachusetts 02346

and

The Commonwealth of Massachusetts
Executive Office of Labor
Department of Labor and Industries
Division of Occupational Hygiene
West Newton, Massachusetts 02165

Notification must be given before asbestos removal starts. If the amount of asbestos is greater than 260 linear feet or 160 square feet, notification is needed ten days before work starts. If the amount of asbestos is less than 260 linear feet or 160 square feet, notification is needed twenty days before work starts.

As a safety precaution, all the asbestos at the site will be treated as if it is friable. The wet method of removal will be used. This method entails wetting all suspected asbestos-containing materials with a wetting solution before disturbing it so that asbestos particles will not become airborne.

Workers will be provided with a comprehensive medical examination (as required by 29 CFR 1910.1001), before exposure to airborne asbestos fibers. Workers will be instructed with regard to the hazards of asbestos, safety and health precautions, and the use of protective clothing and equipment. Dressing areas and showers for workers will be provided. Air monitoring will be conducted, and then the results will be submitted to the contracting officer. Caution signs at all approaches to asbestos control areas will be posted.

All asbestos waste, equipment, clothing, etc. will be placed then sealed in impermeable bags. Waste asbestos materials will be disposed of by burial under at least six inches of daily compacted cover of non-asbestos materials and by final cover of at least two feet of compacted earth at an EPA or State approved sanitary landfill.

After removing the structures, the disturbed sites will be reseeded with endemic vegetation to provide a natural and aesthetically pleasing

environment. Existing vegetation is of a common variety. Some small shrubs may have to be removed in order to access the structures for demolition. No wetland areas will be impacted by construction activities since any immediate wetland areas are isolated from the DERA site itself by a steep slope. (See contour lines on Figure 2).

Work is scheduled for late fall of 1985, or spring of 1986. Construction activities should last approximately 90 days. Typical demolition equipment, such as bulldozers, front-end loaders, and dump trucks will access the structures to be demolished through existing roads.

According to both the U.S. Fish and Wildlife Service and the Massachusetts Natural Heritage Program, there are no threatened or endangered species in the proposed project area. (See attached letters.)

B. Cultural Resources

The proposed removal of several structures will have no impact on any archaeological or historical sites and/or significance. The Massachusetts Historical Commission has concurred with the above finding. (See attached letters.)

VII. Mitigation and Coordination

A limited access area will be established around each structure. Roughly a 25 foot perimeter for activity will be allowed around each demolition site. A staging area will also be allotted for the equipment. A USGS marker exists on concrete pad #1. The pad will not be removed to avoid disturbing the USGS marker.

The proposed work was coordinated with those Federal, State, or local agencies having jurisdiction or an interest in the proposed work. These include:

Ms. Betsy Higgins, Mr. Donald Cooke, and Ms. Bridget McGuinness: U.S. Environmental Protection Agency - Boston, MA

Mr. Gordon Russel: U.S. Fish and Wildlife Service - Concord, NH

Massachusetts Natural Heritage Program - Boston, MA

Ms. Valerie Talmage: Massachusetts Historical Commission - Boston, MA

Mr. Michael Ziobro: Town Engineer, Swansea, MA

Mr. Allen Dusault: Solid Waste Division, Department of Environmental
Quality Engineering - Boston, MA

Department of Labor and Industries, Division of Occupational Hygiene -
West Newton, MA

VIII: COMPLIANCE WITH ENVIRONMENTAL PROTECTION STATUTES, EXECUTIVE ORDERS AND EXECUTIVE MEMORANDUM

Statutes

Archaeological and Historic Preservation Act, as amended, 16 U.S.C. 469 et seq.

Clean Air Act, as amended, 42 U.S.C. 7401 et seq.

Clean Water Act (Federal Water Pollution Control Act), as amended, 33 U.S.C. 1251 et seq.

Coastal Zone Management Act of 1972, as amended, 16 U.S.C. 1531 et seq.

Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 et seq.

Estuarine Areas Act, Act, 16 U.S.C. 1221 et seq.

Federal Water Project Recreation Act, as amended, 16 U.S.C. 4601-5 et seq.

Fish and Wildlife Coordination Act, as amended, 16 U.S.C. 661 et seq.

Land and Water Conservation Fund Act of 1965, as amended, 16 U.S.C. 460d-7 et seq.

Marine Protection, Research, and Sanctuaries Act of 1972, as amended, 33 U.S.C. 1401 et seq.

National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470 et seq.

National Environmental Policy Act of 1969, as amended, 42 U.S.C. 432-1 et seq.

Rivers and Harbors Appropriation Act of 1899, as amended, 33 U.S.C. 401 et seq.

Watershed Protection and Flood Prevention Act, as amended, 16 U.S.C. 1001 et seq.

Wild and Scenic Rivers Act, as amended, 16 U.S.C. 1271 et seq.

See attached letter.

Compliance

Coordination performed with the State Historic Preservation Officer (SHPO) constitutes compliance with this Act.*

Submission of this report to the Regional Administrator of the Environmental Protection Agency (EPA) for review constitutes compliance with the Act.*

Not Applicable.

Not Applicable

Coordination with the U.S. Fish Wildlife Service constitutes compliance with this Act.*

Not Applicable.

Not Applicable.

Coordination with the Department of the Interior constitutes compliance with this Act.

Coordination with the Department of the Interior constitutes compliance with this Act.

Not Applicable.

See number 1 above.

The preparation of this document constitutes compliance with this Act

Not Applicable.

Not Applicable.

Not Applicable.

Executive Orders

Executive Order 11988, Floodplain Management, 24 May 1977, amended
Executive Order 12148, 20 July 1979.

Executive Order 11990, Protection of Wetlands, 24 May 1977.

Executive Order 12114, Environmental Effects Abroad of Major
Actions, 4 January 1979.

Executive Memorandum

Analysis of Impacts on Prime or Unique Agricultural Lands in
Antiquities Act, 1 August 1980.

Compliance

The proposed DERA project will not affect the functioning of the
adjacent floodplain areas.

Wetland areas are outside of the proposed project area and will not be
affected by the project since a steep slope separates them from the
project impact area.

Not Applicable.

Compliance

Not Applicable.

Finding of No Significant Impact

The proposed work consists of the demolition of dilapidated structures located on the control area of former Nike Site 29 in Swansea, Massachusetts. The structures to be removed consist of two large buildings, two smaller buildings, several concrete and bituminous pads, a manhole, paving, and three above-ground storage tanks.

Following demolition, the individual demolition sites will be graded and reseeded with endemic vegetation. Construction activities will last approximately 90 days, and are scheduled for late fall of 1985, or spring of 1986. The materials to be removed will be transported to a suitable disposal site - not yet identified. The disposal site will be chosen by the Contractor, but approved by the Corps as coordinated with the appropriate agencies.

There are no significant environmental resources in the proposed project area. Aside from a temporary increase in noise and dust levels, no adverse effects are anticipated to result from the project. No threatened or endangered species or cultural resources will be affected by the proposed project. No wildlife or wetlands will be significantly affected by the proposed project. The areas affected will be relandscaped to provide a natural and aesthetically pleasing area. Continued development of town recreational use will be enhanced by the project.

Asbestos will be removed and disposed of in accordance with pertinent State and Federal asbestos regulations. All necessary safety precautions have been included in the project's plans and specifications.

Implementation of the proposed project will not require a significant commitment of physical, natural, or human resources. The proposed action will not have a significant impact on the human environment, and therefore, will not require an Environmental Impact Statement.

25 Nov 85

DATE



THOMAS A. RHEN
Colonel, Corps of Engineers
Division Engineer



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
424 TRAPELO ROAD
WALTHAM, MASSACHUSETTS 02254-9149

October 28, 1985

Planning Division
Impact Analysis Branch

U. S. Environmental Protection Agency-Region 1
Office of Government Relations and
Environmental Review (GRER)
ATTN: Ms. Betsy Higgins
JFK Federal Building
Boston, Massachusetts 02203

Dear Ms. Higgins:

This letter is being written in response to your letter dated 22 October 1985, on the Defense Environmental Restoration Program (DERP) project located in Dighton/Swansea, Massachusetts.

In order to be in compliance with Section 112, 176(c), and 309 of the Clean Air Act and the National Environmental Policy Act (NEPA), the final version of the Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) will include a statement showing our awareness of the asbestos requirements under these Acts. The EA will include a description of the asbestos at the site (amount, type), information from our tests (friability), a description of safety measures to be employed by the contractor, a description of disposal safety measures, and other applicable local recommendations from the Division of Occupational Hygiene. Both Federal and State regulations will be cited in the EA.

After the asbestos testing information is analyzed and the contractor is selected, notification will be sent as appropriate to your office, and to the Department of Environmental Quality Engineering (at least 20 days before the project begins).

The Federal and State regulations pertaining to asbestos removal will be attached to the project's plans and specifications. Safety measures have already been included in the plans and specifications.

It is our understanding that by meeting these objectives, our EA and FONSI will be in compliance with the Clean Air Act and NEPA.

Please contact Mr. Jeffrey Bridge at 647-8137 or Ms. Betty Parfenuk at 647-8536, (who coordinated this reply with Mr. Donald Cooke and Ms. Bridget McGuinness of your office) if any questions arise.

Sincerely,

Joseph L. Ignazio
Chief, Planning Division



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J. F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203

October 22, 1985

Joseph L. Ignazio, Chief
Planning Division
New England Division
U.S. Army Corps of Engineers
424 Trapelo Road
Waltham, MA 02254

Dear Mr. Ignazio:

In accordance with Section 112, 176(c), and 309 of the Clean Air Act, and the National Environmental Policy Act, we have reviewed the Draft Environmental Assessment (EA), and the Draft Environmental Finding of No Significant Impact (FONSI) concerning the Defense Environmental Restoration Program Project (DERP) for Project Number D01MA002714 - Nike Site 29 Dighton/Swansea, Massachusetts.

According to the EA, the New England Division proposes demolition of dilapidated structures located at the control area of former Nike Site 29 in Swansea, Massachusetts. The structures to be removed consists of two large buildings, two smaller buildings, several concrete and bituminous pads, a manhole, paving, and three above-ground storage tanks.

We submit the following comments regarding asbestos removal for your use in preparing the Final EA/FONSI.

- We believe the EA for the proposed action does not adequately address the removal or disposal of asbestos. The EPA regulates the removal of asbestos from demolitions and renovations under the National Emission Standards for Hazardous Air Pollutants; Asbestos Standard (NESHAP). This regulation is found at 40 CFR Part 61, Subpart M, and applies to the activities you are planning at this site.

- Several aspects to consider when undertaking an asbestos removal are: 1) scope of the project -- The quantity and type of asbestos to be removed should be ascertained prior to the start of the job; 2) contractor choice -- it is always important to require and check references of each potential contractor; 3) contract specifications -- to ensure that the job will be properly conducted in compliance with state, local and Federal regulations, a detailed specification which outlines the scope of work is an excellent measure. A detailed specification will also reduce the wide range of bids

usually submitted on asbestos removal projects. Attached is a copy of a bid specification which was put together by the State of Maryland for asbestos abatement projects.

- On page 4 of the EA, a statement is made that the disposal site for material removed from the site will be the contractor's responsibility. You should be aware that the NESHAP Asbestos Standard holds the owner of a facility and the operator of a facility responsible for compliance with the Standard. This means that proper disposal of the asbestos is also the responsibility of the owner and not just the contractor.

- Attached are several documents which should be reviewed before undertaking demolition of the Burnt Building. We also suggest that any other building scheduled for demolition be thoroughly inspected for friable and non-friable asbestos. It is a requirement of the NESHAP Asbestos Standard that asbestos be removed from any building prior to demolition.

- The Massachusetts Department of Environmental Quality Engineering (DEQE) has regulations which govern the removal of asbestos. These are similar to EPA's in that both require written notification 10 to 20 days before the work starts, work practices must be followed which are designed to eliminate emissions of asbestos to the ambient air, and the material must be disposed of at a properly operated landfill.

- Finally, we recommend that you contact Joseph Leary of the DEQE to find out exactly what Massachusetts requires for asbestos removal projects. His telephone number is 617/947-1231.

Thank you for the opportunity to review the Draft EA/FONSI. If you have any questions regarding our comments or the information that we have included, please call Donald Cooke of my staff at 617/223-1739 or Bridget McGuinness of EPA's Air Division, Control Technology and Compliance Section at 617/223-4872.

Sincerely yours,

Donald O. Cooke for

Elizabeth A. Higgins, Assistant Director
for Environmental Review
Office of Government Relations
& Environmental Review (RGR-2203)

Enclosures

cc: Elizabeth A. Parfenuk, COE Planning Division
Bridget McGuinness, EPA (APC-2311)

40 CFR Part 61

FRL 2611-4]

National Emission Standards for Hazardous Air Pollutants; Amendments to Asbestos Standard; Correction

U.S. Environmental Protection Agency (EPA).

ACTION: Final rule; correction.

SUMMARY: This document corrects a final rule for amendments to the Asbestos Standard that was published on April 5, 1984 (49 FR 13657). This action is necessary to correct typographical errors.

FOR FURTHER INFORMATION CONTACT:

Doug Bell, Standards Development Branch, ESED (MD-13), U.S. EPA, Research Triangle Park, North Carolina 27711, telephone (919) 541-5624.

Dated: June 11, 1984.

Joseph A. Cannon,

Assistant Administrator for Air and Radiation.

The following corrections are made in 40 CFR Part 61 appearing on page 13657 of the issue of April 5, 1984:

1. On page 13661, column two, the definition of "asbestos waste from control devices" is corrected by replacing the word "in" with "by."

2. On page 13661, column two, the term "Emergency renovation operations" is corrected to "Emergency renovation operation."

3. On page 13661, column three, in the definition of "strip," insert "a" between "part of" and "facility."

4. On page 13661, column three, in the third line of the definition of "structural member," replace the word "loan" with "load."

5. On page 13662, column one, § 61.143, the first two lines are corrected to read "No person may surface a roadway with asbestos tailings or . . ."

6. On page 13662, column two, § 61.145(b), the sixth line is corrected to read, "components, only the . . ."

7. On page 13662, column three, § 61.146(c)(3), the first sentence is corrected to read, "Estimate of the approximate amount of friable asbestos material present in the facility in terms of linear feet of pipe, and surface area on other facility components."

8. On page 13664, column one, § 61.152, the first sentence, third line is corrected to read, "§§ 61.147 and 61.149 shall."

9. On page 13664, column one, § 61.152(b)(1)(iv), the word "hazardous" should be capitalized.

10. On page 13664, column three, § 61.154(a), the third and fourth lines are corrected to read "61.147(d)(2), 61.148(b)(2), 61.149(b), 61.151(b), 61.151(c)(1)(ii), 61.152(b)(1)(ii), and 61.152(b)(2)(ii) shall."

11. On page 13664, column three, § 61.154(a)(1)(i), the third line is corrected to read, "no more than .995 kilopascal (4 inches water gage), as".

[FR Doc. 84-14622 Filed 6-20-84; 8:45 am]

BILLING CODE 6560-20-01

40 CFR Part 717

IOPTS-83001E; TSH-FRL 2600-8]

Confirmation of Effective Date for Recordkeeping and Reporting Procedures

Correction

In FR Doc. 84-14977 beginning on page 23182 in the issue of Tuesday, June 5, 1984, make the following corrections:

1. On page 23183, first column, SUPPLEMENTARY INFORMATION, line two, "2070-007" should read "2070-0017".

2. On the same page, first column, SUPPLEMENTARY INFORMATION, first complete paragraph, line seventeen, "2070-007" should read "2070-0017".

BILLING CODE 1505-01-01

DEPARTMENT OF TRANSPORTATION

Coast Guard

46 CFR Parts 26, 30, 31, 32, 35, 70, 71, 75, 77, 78, 80, 81, 84, 86, 87, 107, 108, 109, 163, 168, 169, 192, 195, 196

[CGD 79-032]

Pilot Boarding Equipment

AGENCY: Coast Guard, DOT.

ACTION: Final rule.

SUMMARY: The Coast Guard is revising its installation, equipment, and operating standards for embarking and disembarking pilots on vessels underway or at anchor. These regulations combine existing requirements with international standards contained in Regulation 17, Chapter V, of the Convention for Safety of Life at Sea (SOLAS) 1974, and add new provisions concerning replacement steps. The regulations apply to all U.S. vessels and certain foreign vessels that board pilots when calling at U.S. ports. The purpose of these regulations is to minimize the potential for hazardous situations when boarding pilots.

EFFECTIVE DATE: These regulations become effective on July 23, 1984.

FOR FURTHER INFORMATION CONTACT: Lieutenant John Astley (202-426-4431).

SUPPLEMENTARY INFORMATION: On October 5, 1983, the Coast Guard published a notice of proposed rulemaking (48 FR 45425) concerning these regulations. Interested parties were given until November 19, 1983, to submit comments. Eight letters were received.

Discussion of Comments and Changes Made

1. The proposed rules prohibited pilot ladders from having more than 2 replacement steps and required that lighting for pilot boarding equipment be permanently installed. In accordance with recommendations of several commenters, these provisions have been deleted from the final rules. Further analysis of these provisions showed that their underlying safety purposes could be accomplished as effectively through compliance with the remaining rules in the proposal.

2. The proposed rules required pilot boarding equipment for all vessels that normally employ pilots. One commenter stated that this requirement should not apply to vessels that have a pilot on board as a part of the regular crew complement. An exception has been added for these vessels in the final rules.

3. One commenter recommended deleting the requirement to have approved replacement steps because it is inconsistent with SOLAS requirements. SOLAS allows 2 non-approved steps to be inserted for damaged steps. The requirement for approved replacement steps has been retained in the final rules. Non-approved steps are often not of adequate quality for safe use. In upcoming meetings of the International Maritime Organization, the Coast Guard will be urging changes to the SOLAS requirements for pilot ladders to incorporate a provision on approved replacement steps.

4. One commenter stated that the requirement to mark replacement steps differently from other steps is unnecessary and should be deleted. This comment has not been adopted. As stated in the notice of proposed rulemaking, the purpose of this requirement is to alert the user that a particular step has been replaced and that due caution should be exercised when stepping on it.

5. One commenter stated that the Coast Guard should require a manufacturer's instruction manual covering replacement step installation. This comment has not been adopted. Both the proposed and final rules have a similar provision requiring each

ENVIRONMENTAL PROTECTION AGENCY

FR Part 61

FR 2616-61

Asbestos Standards for Removal of Asbestos Amendments to Asbestos Standard

ENV: Environmental Protection
Agency (EPA).

HOW: Final rule.

SUMMARY: Amendments to the national asbestos standard for asbestos were proposed in the Federal Register on July 1983 (48 FR 32126). This action promulgates the amendments under section 112 of the Clean Air Act as amended in 1977. The intended effect of the amendments is to reinstate work practice and equipment provisions of the standard that were held not to be emission standards by the U.S. Supreme Court in 1978. They also reword and arrange the standard for clarity.

EFFECTIVE DATE: April 5, 1984. Under section 307(b)(1) of the Clean Air Act, judicial review of these amendments is available only by the filing of a petition for review in the U.S. Court of Appeals or the District of Columbia Circuit within 60 days of today's publication of this rule. Under section 307(b)(2) of the Clean Air Act, the requirements that are the subject of today's notice may not be challenged later in civil or criminal proceedings brought by EPA to enforce these requirements.

ADDRESSES: Docket. A docket, number A-83-02, containing information considered by EPA in development of the promulgated amendments, is available for public inspection between 8 a.m. and 4 p.m., Monday through Friday, at EPA's Central Docket Section (LE-131), West Tower Lobby, Gallery 1, 401 M Street, S.W., Washington, D.C. 20460. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Mr. Robert L. Sax, Standards Development Branch, Emission Standards and Engineering Division (MD-33), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone (919) 341-8578.

SUPPLEMENTARY INFORMATION:

The Amendments

The amendments reinstate portions of the asbestos NESHAP that were equipment work practice requirements. The Supreme Court held in *Adams v. United States*, 434 U.S. 275 (1978) that work

practice requirements of the NESHAP were not authorized by the 1970 Amendments to the Clean Air Act under which they were originally promulgated. The 1977 Amendments to the Act specifically authorize such requirements. On June 19, 1978 (43 FR 26372), EPA repromulgated many of the requirements under authority of the 1977 Amendments, and today's action repromulgates the following remaining requirements in a new Subpart M of 40 CFR Part 61.

1. Section 61.143 reinstates a prohibition of surfacing roadways with asbestos tailings or asbestos containing waste.

2. Sections 61.143(c) and 61.147(g) reinstate a partial exemption for demolition operations for structurally unsound buildings.

3. Section 61.147(e) reinstates the requirement that asbestos removed during demolition or renovation be kept wet until it is collected for disposal. It also requires that the asbestos not be dropped or thrown to the ground or a lower floor and that asbestos removed more than 50 feet above ground level be transported to the ground in dust-tight chutes or containers (unless it is removed in units or sections).

4. Section 61.147(f) reinstates alternative work practices that may be used for removal of asbestos prior to demolition when there are freezing temperature conditions at the point where the asbestos is being wetted.

5. Section 61.150 reinstates the prohibition of installation of certain molded or wet-applied insulating materials that contain commercial asbestos.

6. Sections 61.151(a) and 61.152(a) simply refer to the requirements of Section 61.150.

7. Sections 61.151(b) and (c); 61.152(b) (1), (2), and (3); 61.153(a) (2), (3), and (4); 61.154, and 61.156 (c) and (d) reinstate alternative work practices or equipment that may be used in lieu of complying with a no visible emission limit.

8. Sections 61.153(b) and 61.156(b) reinstate the requirement for warning signs and fencing around asbestos waste disposal sites if (1) the owner or operator chooses to comply with a no visible emission limit rather than follow specified work practices, and (2) there is no natural barrier to deter access by the general public.

In addition to these requirements, today's action clarifies the asbestos NESHAP by rewording and rearranging it into a new Subpart M of 40 CFR Part 61.

Public Participation

The amendments were proposed in the Federal Register on July 13, 1983 (48 FR 32126). To provide interested persons the opportunity for oral presentation of data, views, or arguments concerning the proposed amendments, a public hearing was held on August 9, 1983, at Research Triangle Park, North Carolina. The hearing was open to the public and each attendee was given an opportunity to comment on the proposed amendments. The public comment period was from July 13, 1983, to September 9, 1983.

Fifteen comment letters were received and two interested parties testified at the public hearing concerning issues relative to the proposed amendments. The comments have been carefully considered and, where determined to be appropriate by the Administrator, changes have been made to the proposed amendments.

Summary of Comments and Changes to the Proposed Amendments

Comments on the proposed amendments were received from industry, Federal agencies, State and local air pollution control agencies, and private citizens. The following summary of comments and responses serves as the basis for the revisions that have been made to the proposed amendments. Most of the letters contained multiple comments, some of which were outside the scope of this rulemaking. Those comments have been summarized in Item No. IV-B-1 of Docket No. A-83-02. They are being evaluated in conjunction with the comprehensive review of the asbestos NESHAP that is currently underway.

Most of the remaining comments pertain to the effect that rewording and rearranging the proposed amendments had on the original meaning and intent of the asbestos NESHAP. Some of them also pertain to the reasonableness of those requirements being repromulgated (see list in the section entitled "The Amendments"). The comments are discussed below and are organized according to the sections of the proposed amendments to which they pertain.

Section 61.141

One commenter noted that the proposed definition of "demolition" deletes the previous reference to "any related removing or stripping of friable asbestos materials" and recommended restoring the definition to the old wording. The commenter believes that the new wording may be interpreted to not include removing and stripping.

ded that the proposed "demolition" described in the regulation would occur when a facility is distinguished from the facility as the terms are used in the regulation. The primary activity is that structural members are taken out in a demolition, but not in a renovation, stripping or removal. However, it should not be considered to be a primary activity or demolition. Section 61.145 states when demolition operations meet the criteria regarding the facility, then a renovation, stripping or removal of materials during demolition or must be carried out with the standard. It is not to repeat these definitions in the definition of "demolition." The commenter noted that the definition of renovation would apply to removal of asbestos and stripping and recommissioning that definition be as comprehensive as possible. The commenter did not intend to omit the word "or" from the definition of "demolition" at the time of the regulation. EPA has reevaluated the regulation to determine the most useful alternative for the regulation. The commenter noted in the response to the comment about the definition of "demolition," the term "demolition" should be used to describe the activity being carried out in a facility. The presence of the present definition of "demolition" has been revised accordingly. The commenter recommended changing the phrase "basically operating" to the definition of "renovation" to include the renovation of asbestos-containing materials. The phrase in the old definition of "renovation" has been incorporated into the definition of "renovation." The commenter recommended the inclusion of the definition of "agency renovation" in the regulation. He stated whether a renovation would include operations, such as the removal of asbestos-containing materials, require the removal of asbestos-containing materials. If these operations are expected to occur, they are not planned or scheduled. A commenter considers the occurrence of a renovation to be part of a planned renovation operation and an emergency renovation operation.

The commenter indicated that although the renovations are not planned or scheduled, they are expected to occur. They would, therefore, fit the definition of "planned renovation operation" in § 61.141 that says, "Individual unscheduled operations are included if a number of such operations can be predicted to occur during a given period of time."

Section 61.145

One commenter noted that the word "or" between "operators" and "demolition" in § 61.145(e) should be changed to "of." He indicated that the proper wording would show what he believed to be the Agency's intent to limit applicability of the regulations to only wreckers and renovators and not to include facility owners and operators. The commenter is correct that the word "or" should be changed to "of," and this correction has been made. However, the commenter's interpretation that the regulations apply to only "wreckers and renovators" and not to facility owners and operators is incorrect. The general provisions of 40 CFR Part 61 define "owner or operator" as any person who owns, leases, operates, controls, or supervises a stationary source (40 CFR 61.02(1)). The stationary source in this case is the demolition or renovation operation. The demolition or renovation contractor would clearly be considered an owner or operator by "operating" the stationary source. The facility owner or operator, by purchasing the services of the demolition or renovation contractor, acquires ownership and control of the operation and would, therefore, be the "owner" for purposes of this standard. Therefore, the standard applies to both the contractor and the facility owner or operator.

Sections 61.146 and 61.147

One commenter believes that the wording in §§ 61.146 and 61.147 is vague with respect to identifying who is subject to the requirements, unlike the wording in §§ 61.142, 61.143, 61.144, 61.148, and 61.149, which is restrictive in describing the regulated party.

EPA believes that the applicability of §§ 61.146 and 61.147 as described in § 61.145 adequately identifies those subject to the requirements of the demolition and renovation standard.

One commenter questioned the intent of § 61.147(e)(1). The regulation requires that asbestos materials be adequately wetted to ensure that they remain wet during all remaining stages of demolition or renovation and related handling operations. The commenter asked whether this requirement should be

interpreted to mean that the asbestos has to stay wet even after it is properly bagged and sealed.

The intent of the requirement to keep friable asbestos materials wet during all remaining stages of demolition was to ensure that the asbestos materials that have been removed or stripped but not yet disposed of are not allowed to dry out so that asbestos fibers become airborne. If they are properly sealed in leak-tight containers or bags while wet, they should not dry out before they can be transferred to an acceptable disposal site. In any case, after they are bagged, the waste disposal requirements in § 61.152 (and not § 61.147) would apply to the handling of the asbestos materials. To clarify the meaning of this portion of the standard, the wording of § 61.147(e)(1) has been revised to indicate that the asbestos materials must be kept wet until they are collected for disposal in accordance with § 61.152. They would be considered "collected" when they are properly bagged.

Section 61.150

One commenter asked for clarification of the intent of § 61.150, which prohibits the installation of certain asbestos-containing insulating materials. It was not clear to him whether the prohibition affects manufacturing operations that use parts containing asbestos such as grommets, gaskets, string, etc. in their products.

The preamble of the Federal Register notice that contained the original standard for insulating materials (39 FR 35064; October 25, 1974) discusses the intended applicability of the prohibition. It is clear from that discussion that the prohibition was intended to apply to field installation of such insulating products as molded, asbestos-reinforced blocks, sheets, and semicircular sections for pipe insulation; and powdered asbestos cement products mixed into a slurry and used to insulate irregular shapes. These installations would have been associated with construction activities on buildings and other facilities. Therefore, the prohibition would not affect manufacturing operations that use asbestos-containing parts in their products. The regulation has been reworded to reflect EPA's intended effect of the prohibition.

Section 61.154

One commenter pointed out that the units in § 61.154(a)(1)(iii) do not properly relate square meters to square yards, resulting in a lowering of the weight of the filter by about 20 percent from the old requirement; i.e., 14 oz./sq. yd. is not equal to 14 oz./sq. meter. In addition, he

pointed out that the use of 1/8 inch is not in keeping with EPA's metric program. The errors noted by the commenter have been corrected in the final rule.

Comments 22,355

One commenter requested clarification of the Agency's intent in § 61.155, which requires that existing sources covered by the asbestos NESHAP provide to the Agency within 90 days information regarding their asbestos emission control methods. The commenter asked if renotification and resubmission would be required if they had already complied with these same requirements in the old designation § 61.24.

EPA does not intend that existing sources of asbestos emissions resubmit notifications that were originally required by the standard promulgated in 1973. The wording of § 61.155 has been revised to accurately reflect EPA's intent.

Miscellaneous

One commenter expressed the opinion that the proposed amendments do not sufficiently correct the weakness of the NESHAP regulations and that they represent a "crude slap in the face to asbestos victims and will create health hazards of such proportions that new generations of asbestos victims will be guaranteed." He supported his opinion with the following arguments:

1. The no visible emission limit is not adequate for regulating airborne asbestos because it does not take into account the substantial asbestos disease risk when emissions that are not visible are present.

2. The proposed reinstatement of the exemption from certain wetting requirements during demolition operations in freezing temperatures should not be allowed. Weather conditions that do not allow wetting should also not allow asbestos to be removed. Wetting requirements are important because they can reduce dust levels by a power of 10.

3. Allowing exceptions when local entities pronounce buildings structurally unsound is tantamount to opening a way for widespread violation of health practices.

4. Under no circumstances should visible emissions be allowed.

5. All references to the economic impact should be dropped. EPA should concern itself with the economic impact on society, which ends up paying for disease victims produced by inadequate work regulations.

The first four of the commenter's statements concern issues that are

currently being investigated in the review of the asbestos NESHAP: the no visible emission limit, the exemption from wetting requirements during freezing weather, and the exemption for structurally unsound buildings. EPA will evaluate the effect of these provisions and determine whether they need to be revised. That evaluation is beyond the scope of today's rulemaking, however. The amendments are intended to reinstate the provisions of the original NESHAP and not to include new provisions or delete any of the original ones. Therefore, no changes are being made to these portions of the proposed amendments.

In response to the commenter's suggestion to drop all references to the economic impact of the proposed amendments, the Agency believes that economic impact on the regulated entities is one of many factors that should be considered when setting standards under Section 112 of the Clean Air Act. Any adverse economic impact on society resulting from inadequate regulations for a hazardous air pollutant would be of concern to EPA as it would be a consequence of adverse public health effects. The current review of the NESHAP will include an evaluation of this aspect of regulating asbestos to determine if more stringent requirements are needed.

One commenter said that the requirement in § 61.146(c)(3) to explain the techniques of estimation of the amount of asbestos for certain demolition jobs seems to be a new requirement because he could not locate it in the old regulation. The requirement was in § 61.22(d)(1)(ii) of the old regulation.

One commenter said that States that are enforcing the asbestos NESHAP sometimes have a different interpretation of regulations than EPA and suggested that EPA provide clarification of intent for the States.

Under the Clean Air Act, States are free to require more stringent asbestos emission control measures than those in the asbestos NESHAP. EPA does, however, provide EPA enforcement determinations to States that have been delegated authority to enforce the NESHAP. These determinations include EPA's interpretations of portions of the regulation as questions arise concerning them, and they are very useful in ensuring consistency of enforcement among the States and EPA Regional Offices.

One commenter said that there is a statement in the proposal preamble that is not true. It says, "Demolition and renovation contractors typically transport the asbestos they remove from

a facility to a waste disposal site on a daily basis." The commenter stated that the economics of doing this would be astronomical. For example, the cost of hauling a small number of bags to a disposal site 40 miles away would be very high, and the contractor would wait until a full load had accumulated.

The Agency has carefully considered this comment and concluded that no changes to the regulation are needed since it refers to a discussion in the preamble to the proposed amendments. There are no requirements in the NESHAP that asbestos waste be transported to a disposal site daily.

Three commenters said that the amendments improve the clarity and readability of the asbestos NESHAP and two indicated that the required work practices are currently being used by their companies. Two commenters noted typographical errors, which have been corrected in the final rule. Other minor changes were made in the final rule to ensure that the new wording accurately reflects the intent of the original regulation and to further clarify the requirements.

Docket

The docket is an organized and complete file of all the information submitted to or otherwise considered by EPA in the development of this rulemaking. The principal purposes of the docket are: (1) To allow interested parties to identify readily and locate documents so that they can effectively participate in the rulemaking process; and (2) to serve as the record in case of judicial review, except for interagency review materials (§ 307(d)(7)(A)).

Miscellaneous

A review of this regulation has begun. This review will include an assessment of such factors as the need for integration with other programs, the existence of alternative methods, enforceability, improvements in emission control technology and health data, and reporting requirements.

Under E.O. 12291, EPA must judge whether a regulation is "major" and therefore subject to the requirement of a Regulatory Impact Analysis. This regulation is not major because it does not meet any of the criteria specified in the Executive Order regarding the annual effect on the economy; increase in cost or prices; or adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S. enterprises to compete with foreign enterprises.

Information collection requirements associated with this rule (40 CFR 61.67,

§ 61.10, 61.146, 61.148, and 61.155) have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 et seq., and have been assigned OMB number 3000-0264.

The rule was submitted to the Office of Management and Budget (OMB) for review as required by E.O. 1291.

Pursuant to the provisions of 5 U.S.C. 5(b), I hereby certify that this rule, if promulgated, will not have a significant economic impact on any small entities.

List of Subjects in 40 CFR Part 61

Air pollution control, Asbestos, Beryllium, Hazardous materials, Mercury, Vinyl chloride.

Dated: March 20, 1984.

William D. Ruckelshaus,
Administrator.

PART 61—(AMENDED)

40 CFR Part 61 is amended by redesignating Subpart B (§§ 61.20–61.25) as Subpart M and revising the new Subpart M to read as follows:

Subpart M—National Emission Standard for Asbestos

Sec.

- 61.140 Applicability.
- 61.141 Definitions.
- 61.142 Standard for asbestos mills.
- 61.143 Standard for roadways.
- 61.144 Standard for manufacturing.
- 61.145 Standard for demolition and renovation: Applicability.
- 61.146 Standard for demolition and renovation: Notification requirements.
- 61.147 Standard for demolition and renovation: Procedures for asbestos emission control.
- 61.148 Standard for spraying.
- 61.149 Standard for fabricating.
- 61.150 Standard for insulating materials.
- 61.151 Standard for waste disposal for asbestos mills.
- 61.152 Standard for waste disposal for manufacturing, demolition, renovation, spraying and fabricating operations.
- 61.153 Standard for inactive waste disposal sites for asbestos mills and manufacturing and fabricating operations.
- 61.154 Air-cleaning.
- 61.155 Reporting.
- 61.156 Active waste disposal sites.

Authority: Secs. 112 and 301(a) of the Clean Air Act, as amended (42 U.S.C. 7412, 7601(a)), and additional authority as noted below.

Subpart M—National Emission Standard for Asbestos

§ 61.140 Applicability.

The provisions of this subpart are applicable to those sources specified in §§ 61.142 through 61.153.

§ 61.141 Definitions.

All terms that are used in this subpart and are not defined below are given the same meaning as in the Act and in Subpart A of this part.

Active waste disposal site means any disposal site other than an inactive site.

Adequately wetted means sufficiently mixed or coated with water or an aqueous solution to prevent dust emissions.

Asbestos means the asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, anthophyllite, and actinolite-tremolite.

Asbestos-containing waste materials means any waste that contains commercial asbestos and is generated by a source subject to the provisions of this subpart. This term includes asbestos mill tailings, asbestos waste from control devices, friable asbestos waste material, and bags or containers that previously contained commercial asbestos. However, as applied to demolition and renovation operations, this term includes only friable asbestos waste and asbestos waste from control devices.

Asbestos material means asbestos or any material containing asbestos.

Asbestos mill means any facility engaged in converting, or in any intermediate step in converting, asbestos ore into commercial asbestos. Outside storage of asbestos material is not considered a part of the asbestos mill.

Asbestos tailings means any solid waste that contains asbestos and is a product of asbestos mining or milling operations.

Asbestos waste from control devices means any waste material that contains asbestos and is collected in a pollution control device.

Commercial asbestos means any asbestos that is extracted from asbestos ore.

Demolition means the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations.

Emergency renovation operations means a renovation operation that was not planned but results from a sudden, unexpected event. This term includes operations necessitated by nonroutine failures of equipment.

Fabricating means any processing of a manufactured product that contains commercial asbestos, with the exception of processing at temporary sites for the construction or restoration of facilities.

Facility means any institutional, commercial, or industrial structure, installation, or building (excluding

apartment buildings having no more than four dwelling units).

Facility component means any pipe, duct, boiler, tank, reactor, turbine, or furnace at or in a facility, or any structural member of a facility.

Friable asbestos material means any material containing more than 1 percent asbestos by weight that hand pressure can crumble, pulverize, or reduce to powder when dry.

Inactive waste disposal site means any disposal site or portion of it where additional asbestos-containing waste material will not be deposited and where the surface is not disturbed by vehicular traffic.

Manufacturing means the combining of commercial asbestos—or, in the case of woven friction products, the combining of textiles containing commercial asbestos—with any other material(s), including commercial asbestos, and the processing of this combination into a product.

Outside air means the air outside buildings and structures.

Particulate asbestos material means finely divided particles of asbestos material.

Planned renovation operations means a renovation operation, or a number of such operations, in which the amount of friable asbestos material that will be removed or stripped within a given period of time can be predicted. Individual nonscheduled operations are included if a number of such operations can be predicted to occur during a given period of time based on operating experience.

Remove means to take out friable asbestos materials from any facility.

Renovation means altering in any way one or more facility components. Operations in which load-supporting structural members are wrecked or taken out are excluded.

Roadways means surfaces on which motor vehicles travel. This term includes highways, roads, streets, parking areas, and driveways.

Strip means to take off friable asbestos materials from any part of facility.

Structural member means any load-supporting member of a facility, such as beams and joist supporting walls; or any nonload-supporting member, such as ceilings and nonload-supporting walls.

Visible emissions means any emissions containing particulate asbestos material that are visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.

§ 61.142 Standard for asbestos mills.

Each owner or operator of an asbestos mill shall either discharge no visible emissions to the outside air from that asbestos mill or use the methods specified by § 61.154 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

§ 61.143 Standard for roadways.

No owner or operator of a roadway may deposit asbestos tailings or asbestos-containing waste material on that roadway, unless it is a temporary roadway on an area of asbestos ore deposits.

§ 61.144 Standard for manufacturing.

(a) *Applicability:* This section applies to the following manufacturing operations using commercial asbestos.

(1) The manufacture of cloth, cord, wicks, tubing, tape, twine, rope, thread, yarn, roving, lap, or other textile materials.

(2) The manufacture of cement products.

(3) The manufacture of fireproofing and insulating materials.

(4) The manufacture of friction products.

(5) The manufacture of paper, millboard, and felt.

(6) The manufacture of floor tile.

(7) The manufacture of paints, coatings, caulks, adhesives, and sealants.

(8) The manufacture of plastics and rubber materials.

(9) The manufacture of chlorine.

(10) The manufacture of shotgun shell wads.

(11) The manufacture of asphalt concrete.

(b) *Standard:* Each owner or operator of any of the manufacturing operations to which this section applies shall either:

(1) Discharge no visible emissions to the outside air from these operations or from any building or structure in which they are conducted; or

(2) Use the methods specified by § 61.154 to clean emissions from these operations containing particulate asbestos material before they escape to, or are vented to, the outside air.

§ 61.145 Standard for demolition and renovation: Applicability.

The requirements of §§ 61.146 and 61.147 apply to each owner or operator of a demolition or renovation operation as follows:

(a) If the amount of friable asbestos materials in a facility being demolished is at least 80 linear meters (260 linear feet) on pipes or at least 15 square meters (160 square feet) on other facility

components, all the requirements of §§ 61.146 and 61.147 apply, except as provided in paragraph (c) of this section.

(b) If the amount of friable asbestos materials in a facility being demolished is less than 80 linear meters (260 linear feet) on pipes and less than 15 square meters (160 square feet) on other facility components, only the notification requirements of paragraphs (a), (b), and (c) (1), (2), (3), (4), and (5) of § 61.146 apply.

(c) If the facility is being demolished under an order of a State or local governmental agency, issued because the facility is structurally unsound and in danger of imminent collapse, only the requirements in § 61.146 and in paragraphs (d), (e), (f), and (g) of § 61.147 apply.

(d) If at least 80 linear meters (260 linear feet) of friable asbestos materials on pipes or at least 15 square meters (160 square feet) of friable asbestos materials on other facility components are stripped or removed at a facility being renovated, all the requirements of §§ 61.146 and 61.147 apply.

(1) To determine whether paragraph (d) of this section applies to planned renovation operations involving individual nonscheduled operations, predict the additive amount of friable asbestos materials to be removed or stripped over the maximum period of time a prediction can be made, not to exceed 1 year.

(2) To determine whether paragraph (d) of this section applies to emergency renovation operations, estimate the amount of friable asbestos materials to be removed or stripped as a result of the sudden, unexpected event that necessitated the renovation.

(e) Owners or operators of demolition and renovation operations are exempt from the requirements of §§ 61.05(a), 61.07, and 61.09.

§ 61.146 Standard for demolition and renovation: Notification requirements.

Each owner or operator to which this section applies shall:

(a) Provide the Administrator with written notice of intention to demolish or renovate.

(b) Postmark or deliver the notice as follows:

(1) At least 10 days before demolition begins if the operation is described in § 61.145(a);

(2) At least 20 days before demolition begins if the operation is described in § 61.145(b);

(3) As early as possible before demolition begins if the operation is described in § 61.145(c);

(4) As early as possible before renovation begins.

(c) Include the following information in the notice:

(1) Name and address of owner or operator.

(2) Description of the facility being demolished or renovated, including the size, age, and prior use of the facility.

(3) Estimate of the approximate amount of friable asbestos material present in the facility. For facilities described in § 61.145(b), explain techniques of estimation.

(4) Location of the facility being demolished or renovated.

(5) Scheduled starting and completion dates of demolition or renovation.

(6) Nature of planned demolition or renovation and method(s) to be used.

(7) Procedures to be used to comply with the requirements of this Subpart.

(8) Name and location of the waste disposal site where the friable asbestos waste material will be deposited.

(9) For facilities described in § 61.145(c), the name, title, and authority of the State or local governmental representative who has ordered the demolition.

(Approved by the Office of Management and Budget under control number 2000-0264)

§ 61.147 Standard for demolition and renovation: Procedures for asbestos emission control.

Each owner or operator to whom this section applies shall comply with the following procedures to prevent emissions of particulate asbestos material to the outside air:

(a) Remove friable asbestos materials from a facility being demolished or renovated before any wrecking or dismantling that would break up the materials or preclude access to the materials for subsequent removal. However, friable asbestos materials need not be removed before demolition if:

(1) They are on a facility component that is encased in concrete or other similar material; and

(2) These materials are adequately wetted whenever exposed during demolition.

(b) When a facility component covered or coated with friable asbestos materials is being taken out of the facility as units or in sections:

(1) Adequately wet any friable asbestos materials exposed during cutting or disjoining operations; and

(2) Carefully lower the units or sections to ground level, not dropping them or throwing them.

(c) Adequately wet friable asbestos materials when they are being stripped from facility components before the members are removed from the facility.

In renovation operations, wetting that would unavoidably damage equipment is not required if the owner or operator:

(1) Asks the Administrator to determine whether wetting to comply with this paragraph would unavoidably damage equipment, and, before beginning to strip, supplies the Administrator with adequate information to make this determination; and

(2) When the Administrator does determine that equipment damage would be unavoidable, uses a local exhaust ventilation and collection system designed and operated to capture the particulate asbestos material produced by the stripping and removal of the friable asbestos materials. The system must exhibit no visible emissions to the outside air or be designed and operated in accordance with the requirements in § 61.154.

(d) After a facility component has been taken out of the facility as units or in sections, either:

(1) Adequately wet friable asbestos materials during stripping; or

(2) Use a local exhaust ventilation and collection system designed and operated to capture the particulate asbestos material produced by the stripping. The system must exhibit no visible emissions to the outside air or be designed and operated in accordance with the requirements in § 61.154.

(e) For friable asbestos materials that have been removed or stripped:

(1) Adequately wet the materials to ensure that they remain wet until they are collected for disposal in accordance with § 61.152; and

(2) Carefully lower the materials to the ground or a lower floor, not dropping or throwing them; and

(3) Transport the materials to the ground via dust-tight chutes or containers if they have been removed or stripped more than 50 feet above ground level and were not removed as units or in sections.

(f) When the temperature at the point of wetting is below 0°C (32°F):

(1) Comply with the requirements of paragraphs (d) and (e) of this section. The owner or operator need not comply with the other wetting requirements in this section; and

(2) Remove facility components coated or covered with friable asbestos materials as units or in sections to the maximum extent possible.

(g) For facilities described in § 61.145(c), adequately wet the portion of the facility that contains friable asbestos materials during the wrecking operation.

§ 61.148 Standard for spraying.

The owner or operator of an operation in which asbestos-containing materials are spray applied shall comply with the following requirements:

(a) Use materials that contain 1 percent asbestos or less on a dry weight basis for spray-on application on buildings, structures, pipes, and conduits, except as provided in paragraph (c) of this section.

(b) For spray-on application of materials that contain more than 1 percent asbestos on a dry weight basis on equipment and machinery, except as provided in paragraph (c) of this section:

(1) Notify the Administrator at least 20 days before beginning the spraying operation. Include the following information in the notice:

(i) Name and address of owner or operator.

(ii) Location of spraying operation.

(iii) Procedures to be followed to meet the requirements of this paragraph.

(2) Discharge no visible emissions to the outside air from the spray-on application of the asbestos-containing material or use the methods specified by § 61.154 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

(c) The requirements of paragraphs (a) and (b) of this section do not apply to the spray-on application of materials where the asbestos fibers in the materials are encapsulated with a bituminous or resinous binder during spraying and the materials are not friable after drying.

(d) Owners and operators of sources subject to this section are exempt from the requirements of §§ 61.05(a), 61.07, and 61.09.

(Approved by the Office of Management and Budget under control number 2000-0204)

§ 61.149 Standard for fabricating.

(a) *Applicability.* This section applies to the following fabricating operations using commercial asbestos:

(1) The fabrication of cement building products.

(2) The fabrication of friction products, except those operations that primarily install asbestos friction materials on motor vehicles.

(3) The fabrication of cement or silicate board for ventilation hoods; ovens; electrical panels; laboratory furniture; bulkheads, partitions, and ceilings for marine construction; and flow control devices for the molten metal industry.

(b) *Standard.* Each owner or operator of any of the fabricating operations to which this section applies shall either:

(1) Discharge no visible emissions to the outside air from any of the operations or from any building or structure in which they are conducted; or

(2) Use the methods specified by § 61.154 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

§ 61.150 Standard for insulating materials.

After the effective date of this regulation, no owner or operator of a facility may install or reinstall on a facility component any insulating materials that contain commercial asbestos if the materials are either molded and friable or wet-applied and friable after drying. The provisions of this paragraph do not apply to spray-applied insulating materials regulated under § 61.148.

§ 61.151 Standard for waste disposal for asbestos mills.

Each owner or operator of any source covered under the provisions of § 61.142 shall:

(a) Deposit all asbestos-containing waste material at waste disposal sites operated in accordance with the provisions of § 61.156; and

(b) Discharge no visible emissions to the outside air from the transfer of asbestos waste from control devices to the tailings conveyor, or use the methods specified by § 61.154 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air. Dispose of the asbestos waste from control devices in accordance with § 61.152(b) or paragraph (c) of this section; and

(c) Discharge no visible emissions to the outside air during the collection, processing, packaging, transporting, or deposition of any asbestos-containing waste material, or use one of the disposal methods specified in paragraphs (c) (1) or (2) of this section, as follows:

(1) Use a wetting agent as follows:

(i) Adequately mix all asbestos-containing waste material with a wetting agent recommended by the manufacturer of the agent to effectively wet dust and tailings, before depositing the material at a waste disposal site. Use the agent as recommended for the particular dust by the manufacturer of the agent.

(ii) Discharge no visible emissions to the outside air from the wetting operation or use the methods specified by § 61.154 to clean emissions containing particulate asbestos material

before they escape to, or are vented to, the outside air.

(ii) Wetting may be suspended when the ambient temperature at the waste disposal site is less than -9.5°C (15°F). Determine the ambient air temperature with an accuracy of $\pm 1^{\circ}\text{C}$ ($\pm 2^{\circ}\text{F}$), and record it at least hourly while the wetting operation is suspended. Keep the records for at least 2 years in a form suitable for inspection.

(2) Use an alternative disposal method that has received prior approval by the Administrator.

§ 61.152 Standard for waste disposal for manufacturing demolition, renovation, spraying, and fabricating operations.

Each owner or operator of any source covered under the provisions of §§ 61.144-61.149 shall:

(a) Deposit all asbestos-containing waste material at waste disposal sites operated in accordance with the provisions of § 61.156; and

(b) Discharge no visible emissions to the outside air during the collection, processing (including incineration), packaging, transporting, or deposition of any asbestos-containing waste material generated by the source, or use one of the disposal methods specified in paragraphs (b)(1), (2), or (3) of this section, as follows:

(1) Treat asbestos-containing waste material with water.

(i) Mix asbestos waste from control devices with water to form a slurry; adequately wet other asbestos-containing waste material; and

(ii) Discharge no visible emissions to the outside air from collection, mixing, and wetting operations, or use the methods specified by § 61.154 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air; and

(iii) After wetting, seal all asbestos-containing waste material in leak-tight containers while wet; and

(iv) Label the containers specified in paragraph (b)(1)(iii) as follows:

CAUTION

Contains Asbestos—
Avoid Opening or
Breaking Container
Breathing Asbestos is hazardous
to Your Health

Alternatively, use warning labels specified by Occupational Safety and Health Standards of the Department of Labor, Occupational Safety and Health Administration (OSHA) under 29 CFR 1910.1001(g)(2)(iii).

(2) Process asbestos-containing waste material into nonfriable forms:

(i) Form all asbestos-containing waste material into nonfriable pellets or other shapes; and

(ii) Discharge no visible emissions to the outside air from collection and processing operations, or use the methods specified by § 61.154 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

(3) Use an alternative disposal method that has received prior approval by the Administrator.

§ 61.153 Standard for inactive waste disposal sites for asbestos mills and manufacturing and fabricating operations.

Each owner or operator of any inactive waste disposal site that was operated by sources covered under §§ 61.142, 61.144, or 61.149 and received deposits of asbestos-containing waste material generated by the sources, shall:

(a) Comply with one of the following:

(1) Either discharge no visible emissions to the outside air from an inactive waste disposal site subject to this paragraph; or

(2) Cover the asbestos-containing waste material with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material; or

(3) Cover the asbestos-containing waste material with at least 60 centimeters (2 feet) of compacted nonasbestos-containing material, and maintain it to prevent exposure of the asbestos-containing waste; or

(4) For inactive waste disposal sites for asbestos tailings, apply a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Use the agent as recommended for the particular asbestos tailings by the manufacturer of the dust suppression agent. Obtain prior approval of the Administrator to use other equally effective dust suppression agents. For purposes of this paragraph, waste crankcase oil is not considered a dust suppression agent.

(b) Unless a natural barrier adequately deters access by the general public, install and maintain warning signs and fencing as follows, or comply with paragraph (a)(2) or (a)(3) of this section.

(1) Display warning signs at all entrances and at intervals of 300 m (330 feet) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material was deposited. The warning signs must:

(i) Be posted in such a manner and location that a person can easily read the legend; and

(ii) Conform to the requirements for 81 cm x 36 cm (20" x 14") upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and

(iii) Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph.

Legend	Dimension
Asbestos Waste Disposal Site	2.9 cm (1 inch) Sans Serif, Gothic or Block
Do Not Create Dust	1.8 cm (3/4 inch) Sans Serif, Gothic or Block
Shutting Asbestos to Hazardous to Your Health	14 Point Gothic

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

(2) Fence the perimeter of the site in a manner adequate to deter access by the general public.

(3) Upon request and supply of appropriate information, the Administrator will determine whether a fence or a natural barrier adequately deters access by the general public.

(c) The owner or operator may use an alternative control method that has received prior approval of the Administrator rather than comply with the requirements of paragraph (a) or (b) of this section.

§ 61.154 Air-cleaning.

(a) The owner or operator who elects to use air-cleaning, as permitted by §§ 61.142, 61.144, 61.147(c)(2), 61.147(d)(2), 61.148(b)(2), 61.149(b), 61.152(b)(1)(ii), and 61.152(b)(2) shall:

(1) Use fabric filter collection devices, except as noted in paragraph (b) of this section, doing all of the following:

(i) Operating the fabric filter collection devices at a pressure drop of no more than 4 inches water gage, as measured across the filter fabric; and

(ii) Ensuring that the airflow permeability, as determined by ASTM Method D737-75, does not exceed $9 \text{ m}^3/\text{min}/\text{m}^2$ ($30 \text{ ft}^3/\text{min}/\text{ft}^2$) for woven fabrics or $33 \text{ m}^3/\text{min}/\text{m}^2$ ($35 \text{ ft}^3/\text{min}/\text{ft}^2$) for felted fabrics, except that $12 \text{ m}^3/\text{min}/\text{m}^2$ ($40 \text{ ft}^3/\text{min}/\text{ft}^2$) for woven and $14 \text{ m}^3/\text{min}/\text{m}^2$ ($45 \text{ ft}^3/\text{min}/\text{ft}^2$) for felted fabrics is allowed for filtering air from asbestos ore dryers; and

(iii) Ensuring that felted fabric weighs at least 475 grams per square meter (16 ounces per square yard) and is at least 1.6 millimeters (one-sixteenth inch) thick throughout; and

(iv) Avoiding the use of synthetic fabrics that contain fill yarn other than that which is spun.

(2) Properly install, use, operate, and maintain all air-cleaning equipment authorized by this section. Bypass devices may be used only during upset or emergency conditions and then only for so long as it takes to shut down the operation generating the particulate asbestos material.

(b) There are the following exceptions to paragraph (a)(1):

(1) If the use of fabric creates a fire or explosion hazard, the Administrator may authorize as a substitute the use of wet collectors designed to operate with a unit contacting energy of at least 9.95 kilopascals (40 inches water gage pressure).

(2) The Administrator may authorize the use of filtering equipment other than that described in paragraphs (a)(1) and (b)(1) of this section if the owner or operator demonstrates to the Administrator's satisfaction that it is equivalent to the described equipment in filtering particulate asbestos material.

§ 61.155 Reporting.

(a) Within 90 days after the effective date of this subpart, each owner or operator of any existing source to which this subpart applies shall provide the following information to the Administrator, except that any owner or operator who provided this information prior to April 5, 1984 in order to comply with § 61.24 (which this section replaces) is not required to resubmit it.

(1) A description of the emission control equipment used for each process; and

(2) If a fabric filter device is used to control emissions, the pressure drop across the fabric filter in inches water gage; and

(i) If the fabric device uses a woven fabric, the airflow permeability in $m^3/min/m^2$ and; if the fabric is synthetic, whether the fill yarn is spun or not spun; and

(ii) If the fabric filter device uses a felted fabric, the density in g/m^3 , the minimum thickness in inches, and the airflow permeability in $m^3/min/m^2$.

(3) For sources subject to §§ 61.151 and 61.152:

(i) A brief description of each process that generates asbestos-containing waste material; and

(ii) The average weight of asbestos-containing waste material disposed of, measured in kg/day; and

(iii) The emission control methods used in all stages of waste disposal; and

(iv) The type of disposal site or incineration site used for ultimate disposal, the name of the site operator, and the name and location of the disposal site.

(4) For sources subject to § 61.153:

(i) A brief description of the site; and

(ii) The method or methods used to comply with the standard, or alternative procedures to be used.

(b) The information required by paragraph (a) of this section must accompany the information required by § 61.10. The information described in this section must be reported using the format of Appendix A of this part.

(Sec. 114, Clean Air Act as amended (42 U.S.C. 7414)).

(Approved by this Office of Management and Budget under control number 2000-0204)

§ 61.156 Active waste disposal sites.

To be an acceptable site for disposal of asbestos-containing waste material under §§ 61.151 and 61.152, an active waste disposal site must meet the requirements of this section.

(a) Either there must be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited, or the requirements of paragraph (c) or (d) of this section must be met.

(b) Unless a natural barrier adequately deters access by the general public, either warning signs and fencing must be installed and maintained as follows, or the requirements of paragraph (c)(1) of this section must be met.

(1) Warning signs must be displayed at all entrances and at intervals of 100 m (330 ft) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material is deposited. The warning signs must:

(i) Be posted in such a manner and location that a person can easily read the legend; and

(ii) Conform to the requirements of 51 cm x 36 cm (20" x 14") upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and

(iii) Display the following legend in the lower panel with letter sizes and

styles of a visibility at least equal to those specified in this paragraph.

Legend	Minimum
Asbestos Waste Disposal Site	2.5 cm (1 inch) Bare Soil, Gravel or Rock
Do Not Open Out	1.5 cm (5/8 inch) Bare Soil, Gravel or Rock
Directing Attention to Hazardous Waste Material	14 Point Graphic

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

(2) The perimeter of the disposal site must be fenced in a manner adequate to deter access by the general public.

(3) Upon request and supply of appropriate information, the Administrator will determine whether a fence or a natural barrier adequately deters access by the general public.

(c) Rather than meet the no visible emission requirement of paragraph (a) of this section, an active waste disposal site would be an acceptable site if at the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material which was deposited at the site during the operating day or previous 24-hour period is covered with either:

(1) At least 15 centimeters (6 inches) of compacted nonasbestos-containing material, or

(2) A resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. This agent must be used as recommended for the particular dust by the manufacturer of the dust suppression agent. Other equally effective dust suppression agents may be used upon prior approval by the Administrator. For purposes of this paragraph, waste crankcase oil is not considered a dust suppression agent.

(d) Rather than meet the no visible emission requirement of paragraph (a) of this section, an active waste disposal site would be an acceptable site if an alternative control method for emissions that has received prior approval by the Administrator is used.

(Secs. 112 and 301(a) of the Clean Air Act as amended (42 U.S.C. 7412, 7601(a))

(FR Doc. 84-0200 Filed 4-4-84; 8-45 am)

BILLING CODE 5540-05-01

DEMOLITION/RENOVATION NOTIFICATION INFORMATION SHEET

(as required in Title 40 CFR Part 61, Subpart M, §61.146
of the NESHAP Asbestos Standard)

Name of Operator/Owner: _____

Address of Operator/Owner: _____

Phone: _____

Description of Facility: Size: _____ Age _____

Prior Use: _____

Amount of Friable Asbestos Present: _____ (ft. or sq. ft.)

Amount of Friable Asbestos to be Removed: _____ (ft. or sq. ft.)

Address of Facility: _____

Starting Date of Removal: _____ Completion Date: _____

Nature of Demolition/Renovation Method Used: _____

Procedures Used for Compliance with Subpart M: _____

Name/Location of Waste Disposal Site: _____

Name/Title/Authority of Agency Ordering Demolition: _____
(for projects described in §61.145(c))

POLICY FOR THE HANDLING AND DISPOSAL
OF "NON FRIABLE" ASBESTOS WASTE

Background

It has been clearly established that asbestos fibers are a hazard to human health when inhaled. For this reason EPA has published very specific procedures for the removal, handling, transport, and disposal of asbestos-containing material.

There are two properties of asbestos which make it particularly suitable for disposal by sanitary landfill:

- (1) The mineral fibers resist degradation and are inert and insoluble in water. As such, they do not represent a threat to ground-water supplies as the result of leaching.
- (2) Because of its fibrous nature asbestos tends to lodge in the voids between individual grains of sand and gravel, unless the material at the point of land disposal is exceptionally coarse or the area is subject to flooding.

EPA and State Policy

In accordance with the Clean Air Act, EPA has published emission standards for asbestos mills, roadways, manufacturing processes, and demolition and renovation operations (40 CFR, Part 61, Subpart B, Section 61.22). The State is enforcing the federal regulations as they are written.

It has become apparent, however, that there is widespread misunderstanding of the purpose and meaning of these regulations. In order to clear up this confusion, a distinction must be made between "friable" and "non-friable" asbestos material:

"Friable asbestos material" means any material that contains more than 1 percent asbestos by weight and that can be crumbled, pulverized, or reduced to a powder, when dry, by hand pressure."

(40 CFR, Part 61, Subpart B,
Section 61.21)

It is possible to treat asbestos materials or wastes with a wetting agent and water so that they are in a state so that fibers cannot become entrained in the air. Caution must be exercised to make certain that such wastes remain in a wetted, or "non-friable," state while they are being handled, transported, or disposed of.

June 20, 1979

All of the precautionary regulations set forth in Section 61.22 apply only to friable wastes. The regulations have been designed by EPA to encourage contractors to maintain the asbestos material in a wetted state.

In another section of the regulations EPA has published requirements for waste disposal sites for asbestos-containing materials (40 CFR Part 61, Subpart B, Section 61.25). "Asbestos-containing waste material" is defined in the regulations as "any waste which contains commercial asbestos and is generated by a source subject to the provisions of this subpart, including . . . friable asbestos waste material, and bags or containers that previously contained commercial asbestos." Unless the material is covered with either 6 inches of dirt or an approved dust suppressant at the end of each operating day, the disposal area must be fenced and posted with warning signs. No visible emissions are allowed to emanate from uncovered disposal areas.

Implementation of Asbestos Policy

Generally, private and municipal landfill operators have been unwilling to accept asbestos wastes because they regard it as a "hazardous" substance. Therefore, it is necessary to clarify the difference between hazardous and non-hazardous forms of asbestos.

Techniques which will render asbestos materials and wastes from demolition sites into "non-friable" asbestos, and therefore "non-hazardous" wastes, should be encouraged by the department. The following procedures will be acceptable in those areas under departmental jurisdiction:

- (1) During removal operations, water and a wetting agent are to be applied to the asbestos-containing substances so that no asbestos becomes entrained into the air.
- (2) Contaminated work clothes and equipment which have been discarded are to be hauled from the site in sealed plastic bags, according to the regulations for "friable" asbestos.

Method I

The wetted asbestos may be sucked up as a slurry into a closed vacuum truck system, making certain that no asbestos fibers can be entrained through the vacuum exhaust system.

- (a) When this method is used, arrangements should be made for expeditious disposal of contaminated work clothes and asbestos wastes which are in a "non-friable" state at an approved landfill. Subject to the approval of the Department's Regional Environmental Engineer on a case-by-case basis, it is suggested that an agreement be reached between the landfill operator and the demolition contractor so that:
- (b) advance notice is given to the disposal facility operator when a waste shipment is ready for disposal;

- (c) a trench is opened at the landfill;
- (d) both contaminated work clothes and "non-friable" asbestos slurry are deposited directly into the trench;
- (e) the entire waste load is covered shortly after delivery (before any of the wetted asbestos becomes dry and, therefore, friable);
- (f) precaution is taken to select an area which will not be subject to future excavation; and
- (g) the location of the asbestos waste is noted for future reference on a plan of the landfill area on file with DEQE.

Method II

Properly wetted and bagged asbestos waste may be placed at the active face of an approved, large landfill for disposal. If the waste material is placed there early in the day, sufficient wastes will be brought in during the operating day for the asbestos waste to be thoroughly covered before it dries out and, therefore, becomes friable.

- (a) advance notice should be given to the disposal facility operator;
- (b) adequate daily cover shall be placed over that section of the landfill which contains asbestos waste.

Compliance with Other Regulations

It should be noted that asbestos is a special waste as defined in the Department's "Regulations for Disposal of Solid Waste by Sanitary Landfill," published in 1971. Attention is called to the provisions of Regulation 16, which require that permission of the assigning authority (i.e., local Board of Health) be obtained for such disposal, and that copies of the approval be sent to both the Department's Regional Environmental Engineer and the appropriate office of the Division of Water Pollution Control.

This policy in no way changes the applicable rules and regulations of any other State or Federal agency having jurisdiction over the removal and handling of asbestos-containing materials.

7.08: continued

1. be recorded and the records placed in the operating log in compliance with 310 CMR 30.542, and
 2. be submitted to the Department in accordance with 310 CMR 30.807 no later than ninety (90) days after completion of the actual testing or within such other deadline as the Department may prescribe in writing.
- (k) No person shall cause, suffer, allow, or permit the operation of any hazardous waste incinerator that is not equipped with instrumentation which is properly maintained in an accurate operating condition and operated continuously to indicate and record the:
1. carbon monoxide and oxygen levels in the stack exhaust gas,
 2. waste feed and supplementary fuel rates,
 3. combustion temperature, and
 4. combustion gas velocity.
- The instrumentation and its installation shall be as approved by the Department in accordance with 310 CMR 7.08(4).
- (l) No person shall cause, suffer, allow, or permit the operation of any hazardous waste incinerator unless said operation is in conformance with the following:
1. During start-up and shutdown, hazardous waste shall not be fed into the incinerator unless the incinerator is operating within the conditions of operation as specified in the Department's approval; and
 2. Fugitive emissions from the combustion zone shall be controlled by:
 - a. keeping the combustion zone totally sealed against fugitive emissions; or
 - b. maintaining a combustion zone pressure lower than atmospheric pressure; or
 - c. an alternative means of fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure as approved by the Department; and
 3. Each hazardous waste incinerator shall be equipped with a functioning system to automatically cease operation of the incinerator when change(s) in waste feed, incinerator design, or operating conditions exceed limits as designated in a Department approval. Each such systems, and each alarm associated therewith, shall be tested at least weekly to verify operability; and
 4. At least once each day during which it is operated, each hazardous waste incinerator and associated equipment (e.g. pumps, valves, conveyors, and pipes) shall be subjected to thorough visual inspection for leaks, spills, fugitive emissions, and signs of tampering; and
 5. All monitoring and inspection data shall be recorded and the records shall be placed in the operating log required by 310 CMR 30.542.

7.09: U Dust, Odor, Construction, and Demolition

(1) No person having control of any dust or odor generating operations such as, but not limited to asphalt batching plants, asphalt roofing materials manufacturing plants, asphalt blowing plants, foundries, chemical products manufacturing plants, incinerators, fuel utilization facilities, petroleum products manufacturing plants, aggregate manufacturing plants, food preparation or processing facilities, wood products plants, dry cleaning establishments, paint and varnish manufacturing plants, paper manufacturing plants, leather manufacturing plants, concrete batching plants, metal coating and treating plants, land clearing operations, construction work, dump operations, agricultural operations and street sweeping shall permit emissions therefrom which cause or contribute to a condition of air pollution.

(2) No person responsible for any construction or demolition of an industrial, commercial, or institutional building or residential building

7.09: continued

[with twenty or more dwelling units, shall cause, suffer, allow, or permit emissions therefrom which cause or contribute to a condition of air pollution. Said person shall notify the Department in writing twenty days prior to the initiation of said construction or demolition operation. The twenty day advance notice period will be waived in the event of emergency demolition necessary to prevent a public health or safety hazard.

(3) No person responsible for an area where construction or demolition has taken place shall cause, suffer, allow, or permit particulate emissions therefrom to cause or contribute to a condition of air pollution by failure to seed, pave, cover, wet, or otherwise treat said area to prevent excessive emissions of particulate matter.

(4) No person shall cause, suffer, allow, or permit the handling, transportation, or storage of any material in a manner that results or may result in emissions therefrom which cause or contribute to a condition of air pollution.

(5) No persons responsible for any construction or demolition of a structure that contains friable asbestos material shall fail to comply with 310 CMR 7.09(2) and 310 CMR 7.02. (National Emission Standards for Hazardous Pollutants)

(6) No person shall cause, suffer, allow, or permit the operation of mechanized street sweeping equipment that is not equipped with a suitable dust collection or dust suppression system which is maintained in good operating condition and is operated continuously while the street sweeping equipment is in use to prevent conditions of air pollution.

(7) 310 CMR 7.09(1) through 7.09(4) and 7.09(6) are subject to the enforcement provisions specified in 310 CMR 7.52.

7.10: U Noise

(1) No person owning, leasing, or controlling a source of sound shall willfully, negligently, or through failure to provide necessary equipment, service, or maintenance or to take necessary precautions cause, suffer, allow, or permit unnecessary emissions from said source of sound that may cause noise.

(2) 310 CMR 7.10(1) shall pertain to, but shall not be limited to, prolonged unattended sounding of burgular alarms, construction and demolition equipment which characteristically emit sound but which may be fitted and accommodated with equipment such as enclosures to suppress sound or may be operated in a manner so as to suppress sound, suppressable and preventable industrial and commercial sources of sound, and other man-made sounds that cause noise.

(3) 310 CMR 7.10(1) shall not apply to sounds emitted during and associated with:

- (a) parades, public gatherings, or sporting events, for which permits have been issued provided that said parades, public gatherings, or sporting events in one city or town do not cause noise in another city or town;
- (b) emergency police, fire, and ambulance vehicles;
- (c) police, fire, and civil and national defense activities;
- (d) domestic equipment such as lawn mowers and power saws between the hours of 7 A.M. and 9 P.M.

(4) 310 CMR 7.10(1) is subject to the enforcement provisions specified in 310 CMR 7.52.

7.13: U Stack Testing

(1) Any person having control of a facility for which the Department has determined that stack testing is necessary to ascertain compliance with the Department's regulations or design approval provisos shall cause such stack testing:

- (a) to be conducted by a person knowledgeable in stack testing,
- (b) to be conducted in accordance with procedures approved by the Department,
- (c) to be conducted in the presence of a representative of the Department when such is deemed necessary, and
- (d) to be summarized and submitted to the Department with analyses and report by an engineer registered in accordance with the provisions of M.G.L. c. 112 as amended.

(2) Any person having control of a facility, relative to which the Department determines that stack testing (to ascertain the mass emission rates of air contaminants emitted under various operating conditions) is necessary for the purposes of regulation enforcement or determination of regulation compliance shall cooperate with the Department to provide:

- (a) entrance to a location suitable for stack sampling,
- (b) sampling ports at locations where representative samples may be obtained,
- (c) staging and ladders to support personnel and equipment for performing the tests,
- (d) a suitable power source at the sampling location for the operation of sampling equipment, and
- (e) such other reasonable facilities as may be requested by the Department.

7.14: U Monitoring Devices and Reports

(1) Upon request by the Department through direct communication or public notice, any person who owns or operates a stationary emission source of a category and class specified by the Department:

- (a) shall install, maintain, and use emission monitoring devices, of a design and installation approved by the Department, and
- (b) shall make periodic reports to the Department on the nature and amounts of emissions from said source which the Department shall review and correlate for its use in emissions control and exhibit for public information.

7.15: U Asbestos

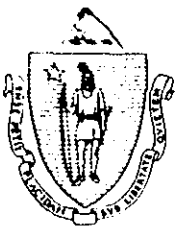
(1) No person shall cause, suffer, allow, or permit the spray application of asbestos fibers or the application or handling of said material by means which, in the opinion of the Department, may cause or contribute to a condition of air pollution.

(2) No person responsible for any construction or demolition of a structure that contains friable asbestos shall fail to comply with 310 CMR 7.02 and 310 CMR 7.09.

7.16: U Reduction of Single Occupant Commuter Vehicle Use

(1) Commencing with the effective date of this Regulation each affected facility (except as provided below) shall diligently and expeditiously implement and thereafter continuously maintain the following mandatory measures which are designed to achieve a goal of reducing the number of single occupant commuter vehicles customarily commuting daily to each employment facility as of its base date by 25 percent or as adjusted pursuant to 310 CMR 7.16(7):

- (a) making available to commuters any pass program offered by the area transit authority, if any commuter to the facility uses the public transit facilities of such Authority as part of his daily com-



The Commonwealth of Massachusetts

Executive Office of Labor

Department of Labor and Industries

Division of Occupational Hygiene

1001 Watertown Street, West Newton 02165

SUGGESTED BID SPECIFICATIONS

FOR CONTRACTUAL ASBESTOS RELATED WORK

REFERENCE: Mineral Safe Practices Data Sheet #2, "Asbestos".

Introduction: The purchaser of contract services is advised to establish controls to minimize asbestos exposure to prevent building contamination and to protect building occupants. Once the contractor leaves the job site there are currently no regulations protecting the building owners. To ensure proper clean-up performance by the contractor, the purchaser of the contract services should provide the contractor with definitive job specifications for asbestos related work. Such specifications essentially restrict bidding to those contractors who know the work and regulations, and are prepared to do a thorough job. The written contract should detail work activities which comply with EPA, OSHA and Mass. Department of Labor & Industries regulations. In addition, bonding is desirable to insure appropriate compliance with the contract and completion within the scheduled time period. Before the asbestos related work commences, a pre-bid meeting should be attended by all key project personnel. The following are suggested specifications which should be included in the contract for the proposed asbestos work:

SUGGESTED SPECIFICATIONS FOR PROPOSED ASBESTOS WORK

Applicable Regulations: The contractor shall comply with EPA and OSHA regulations for work practices involving the handling, renovation and/or removal of asbestos containing material. The following publications are applicable:

- (1) Occupational Safety and Health Standards (29 CFR 1910) in general, and specifically Section 1910.1001.
- (2) Environmental Protection Agency regulations contained in Title 40 (CFR Part 61, Subpart B, as amended, as applicable to asbestos).
- (3) Mass. Dept. of Labor, Industrial Safety Bulletins Nos. 1, 2, 12 and 13.

Notification: The contractor shall notify the Massachusetts Department of Labor and Industries, Division of Occupational Hygiene ten (10) days in advance of the commencement of the work project. The contractor shall notify the Massachusetts Department of Environmental Quality Engineering, Division of Air

and Hazardous Materials, twenty (20) days in advance of the commencement of the work, and the Federal Environmental Protection Agency ten (10) days in advance.

Permits: It is the responsibility of the contractor to secure all the necessary permits for the asbestos related work, including hauling, removal, and disposal. The contractor is also responsible for timely notification of such actions, as may be required by the Federal, State, regional, and local authorities. Matters of interpretation of these standards shall be submitted by the contractor to the respective administrative agency for resolution before starting the job.

Submittals: The purchaser will specify the time table necessary for the operation to proceed smoothly and be completed in a reasonable period. The contractor will then submit a detailed construction schedule describing the phasing, sequencing and interfacing of all the trades involved in the asbestos related work. The construction schedule, and compliance with its dates is mandatory.

Worker Protection:

- (1) Equipment: The contractor shall furnish all the equipment, tools, and special clothing necessary to perform the work in a safe and expeditious manner. Power equipment shall conform to OSHA standards.
- (2) Clothing: Workers shall wear special whole body clothing, head and foot coverings. Asbestos contaminated clothing shall be disposed of as an asbestos waste product, or a special procedure may be followed to launder them, (29 CFR 1910.1001). Eye protection and hard hats shall be provided as appropriate. All disposable clothing must be fire retardant.
- (3) Respirators: Workers are to be provided with respiratory equipment. The respirators are to be sanitized and maintained according to the manufacturer's specifications. Appropriate respirator selection is dependent upon the intensity of the asbestos exposure. OSHA guidelines for respirator selection are outlined below:
 - (a) An air purifying respirator is to be used when the 8-hour TWA is not more than 20 fibers per cubic centimeter of air
 - (b) Powered air purifying respirators are to be used when the 8-hour TWA is greater than 20 fibers, but less than 200 fibers per cubic centimeter of air.
 - (c) A type "C" continuous flow or pressure-demand supplied air respirator is to be used when the 8-hour TWA is greater than 200 fibers per cubic centimeter of air.

Note: Respirators may be used for exposures lower than their rated protection.

Medical: Medical examinations must be performed and medical records kept in accordance with OSHA regulations and made available to the Department of Labor and Industries. In addition, the contractor shall furnish written proof that employees have had instruction on the hazards of asbestos exposure, on the respirator use, decontamination and OSHA regulations.

Personal Hygiene: All workers without exception:

- (1) Will change work clothes at designated areas prior to starting the day's work. Separate lockers or acceptable substitutes will be provided by the contractor for street and work clothes.
- (2) All work clothes shall be removed in the work access area prior to the departure from this area. Workers will then proceed to the showers. Workers will shower at the end of each work day. Hot water, towels, soap, and hygienic conditions are the responsibility of the contractor.
- (3) No smoking, eating or drinking is to take place beyond the established clean room at the work site. Prior to smoking, eating, or drinking, workers will be fully decontaminated. Each worker will then dress in clean coveralls to eat, drink, or smoke. These new coveralls can then be worn back onto the work area.
- (4) Work footwear will remain inside the change area until the completion of the job, and then disposed as asbestos waste or thoroughly cleaned.

Security Program:

- (1) The building must be closed to the public. A security system must be established so that only authorized personnel can enter the asbestos job site.
- (2) Caution signs are to be posted at all work locations. These signs must conform to OSHA regulations. (29 CFR 1910.1001).
- (3) A security guard is to be stationed at the entrance to the building.
- (4) Emergency exits shall be maintained, or alternate exits provided, during construction.

Work Procedures and Practices:

- (1) The purchaser of the contract services and the contractor should inspect the present condition of the walls, floors, ceiling, and other fixtures in the work area. The contractor is responsible for any damage that occurs as a result of the asbestos related work project. Pictures may be desirable.
- (2) Isolation of the work area ventilation system is carried out first to prevent contamination and fiber dispersal to other areas of the building during the work phase.
- (3) All moveable objects present in the proposed work area must be transferred to a new location outside the proposed work area. Anything remaining in the work area must then be sealed with polyethylene sheeting.
- (4) The asbestos work area must be isolated from the rest of the building, and access restricted to the site according to OSHA regulations. This is accomplished by sealing corridors and entry ways with polyethylene plastic barriers.
- (5) Setting up the Enclosures:

A major effort must be undertaken to ensure that the asbestos fibers are confined at the work site and that all surfaces are free of asbestos accumulation when the work is completed. This is accomplished by creating a series of four specially designed chambers:

- (i) Work Space: The handling, renovation and/or removal of asbestos must be confined to this space. All surfaces (excluding the asbestos-containing material itself) must be protected from contamination with polyethylene sheets of 6 mil or greater thickness. All edges must be taped securely. All walls, floors, furnishings, diffusers, grilles and air conditioning units must be covered and sealed. All workers must remove gross contamination from their clothing before leaving this area.
- (ii) Equipment and Access Area: This area is designated for equipment storage and access to the work space. Workers must remove all protective clothing, except for their respirators in this area. All surfaces shall be covered with polyethylene as described for the work space.
- (iii) Shower Room: Workers will remove respirators and shower in this area.
- (iv) Clean Room: This area is to be kept free from asbestos contamination. All street clothes must be kept in the confines of this space. At the beginning of the work cycle, workers will change into clean protective clothing in this area. At the end of the work cycle, workers dress in this area after showering.
- (6) If, at any time, air monitoring shows that areas outside the sealed plastic enclosures have 8-hour TWA's above the background level of 0.04 fibers/cc, these contaminated areas must be enclosed. They will then have to be maintained and cleaned in the same manner as the work space.
- (7) Removal of ceiling mounted objects such as lights, partitions, and other fixtures must precede the actual asbestos related work. This will usually result in contact with ceiling, creating potentially hazardous asbestos exposures. Localized water spraying during fixture removal must be used to reduce fiber dispersal. Protective clothing and an air purifying respirator must be worn.
- (8) Before asbestos material is handled, it must be sprayed with water containing a wetting agent to prevent excessive dispersal of asbestos fibers. The asbestos material should be wetted repeatedly during the work process to minimize asbestos fiber dispersion.
- (9) In work projects that require a great deal of water for wetting the asbestos-containing material, 24 volt safety lighting must be used in lieu of the building's own lighting system.
- (10) All asbestos and asbestos-contaminated waste material shall be sealed in polyethylene plastic bags with a thickness of 6 mil or greater. The bags are to be labelled, transported and disposed of in accordance with the applicable OSHA and EPA regulations. At the conclusion of the job, all polyethylene material, tape, cleaning material, and clothing will be bagged and treated as asbestos waste.
- (11) All equipment including plywood, scaffolding and planks will be cleaned of asbestos material prior to leaving the work area.

Air Monitoring: Air sampling must be conducted during related asbestos work and cleaning phase to ensure that the contractor is complying with all codes, regulations and ordinances. The sampling methods to be used at the job site are described in OSHA 1910.

All air monitoring must be in compliance with the NIOSH approved method for asbestos sampling. Air monitoring will be performed to provide the following samples during the period of the asbestos related work:

Suggested sampling:

<u>Area to be Sampled</u>	<u>Number of Samples</u>	<u>Minimum Sample Volume in Liters</u>
Workers	1/120 man hours with a minimum of one	As appropriate
Outside work area barriers	Average of one per day with a minimum of two per job	1000

These samples will be used to determine worker exposure to asbestos for the purpose of selecting the appropriate respirator. They will also be used to determine if the asbestos material has been successfully contained in the work area, or if additional sealed enclosures need to be constructed to contain the material.

Clean-Up:

- (1) When the work is finished, it is the contractor's responsibility to clean the area to a safe level.
- (2) All debris shall be cleaned up and deposited in the bags designated for asbestos waste.
- (3) All surfaces shall be wet mopped.
- (4) The area shall be cleaned by wet methods to a condition of no visible asbestos debris.
- (5) The plastic shall be removed and disposed as asbestos waste. Plastic seals to other building areas shall not be broken at this time.
- (6) The area shall be recleaned by wet methods.
- (7) The area shall be fogged.
- (8) Twenty-four hours after fogging, air samples are to be taken in and around the work enclosure; (minimum of 1200 liters of air per sample).. A small fan is used during the sampling to circulate the air and simulate occupant activity.
- (9) The fiber/cc count for all samples within the cleaned work areas must be 0.01 or lower. If the samples are not 0.01 or lower the contractor must repeatedly clean and sample until the levels meet this criterion. Once this criterion has been reached, the plastic seals dividing building areas may be removed.
- (10) Access areas and contaminated locker area shall be included in the clean-up.

Specific Work to Be Performed: The purchaser and the contractor must agree on the specific work to be performed. If the friable asbestos material is to be removed, encapsulated, or enclosed, the contract should so state. The plastic enclosed areas, locker and shower facilities and access area and hallways should be defined in the contract. If the job is to be completed in discrete sections, the contract should state the order of completion of the projects. If finish work is to take place after the asbestos related work is completed, the contract should include provisions for the scheduling for this also. The contractor is responsible for making sure that all work areas have air sampling levels under 0.01 fibers/cc before further non-asbestos related work proceeds in the area.

IF, AT ANY TIME, THE PURCHASER'S REPRESENTATIVE DECIDES THAT THE WORK PRACTICES ARE VIOLATING PERTINENT REGULATIONS OR ENDANGERING WORKERS, HE WILL IMMEDIATELY NOTIFY IN WRITING THE ON-SITE CONTRACTOR REPRESENTATIVE THAT OPERATIONS ARE IN VIOLATION OF CONTRACT SPECIFICATIONS.

MASSACHUSETTS DEPARTMENT OF LABOR AND INDUSTRIES

George W. Ripley, COMMISSIONER

DIVISION OF OCCUPATIONAL HYGIENE

Leonard D. Pagnotto, C.I.H., DIRECTOR

1001 Watertown Street, West Newton 02165

Telephone 617/727-3982

No. 1349

Supersedes No. 1283

April, 1984



EASTERN ANALYTICAL LABORATORIES, INC.
149 RANGEWAY ROAD BILLERICA, MA 01862

TELEPHONE (617) 872-5212

October 11, 1985

Army Corps of Engineers
424 Trapelo Road, Bldg. #142
Waltham, MA 02154
Attn: Mr. Forest Knowles

Dear Mr. Knowles,


Please find enclosed our analysis for asbestos on the 6 bulk samples you submitted to us.

Analyses were performed using standard optical microscopy and petrographic techniques. A representative portion of each bulk sample was placed on a glass slide, immersed and macerated in appropriate index oils. This was then examined under plane and fully polarized light on the petrographic microscope. The following features were used to identify unknown particles and fibers; morphology (shape), extinction angle, crystallographic orientation, index of refraction, birefringence, size, color, etc. A photomicrograph of each sample is included to aid you in our description of phases present.

Analytical results (compositions and percentages) are listed on the bulk report forms attached. In samples where asbestos was not present the following applies since it is impossible to prove the absence of a substance. It can be said that asbestos, if present, is in concentrations of <.1%. Modal percentages are estimated by visual modal estimation comparison charts and standard weight/weight mixtures of kaolinite clay and amosite asbestos.

Should you have further questions, or need additional information, please do not hesitate to contact me at any time.

Sincerely,
EASTERN ANALYTICAL LABORATORIES, INC.


VERNON E. ROBERTSON
Staff Scientist

VER/kr



in spec

STERN ANALYTICAL LABORATORIES, BULK SAMPLE ASBESTOS ANALYSIS

CLIENT: U.S.ARMY CORPS OF ENG'S.

Analyzed by: ROBERTSON on: 11-Oct-85

Amount: 1-10 mg. Preparation: Macerated in n=1.590 index oil

Method: Polarized Light Microscopy (PLM) Det. limit=<0.1%

1 (CEILING, U.S.ARMY CORPS OF ENG'S.)

10-20% :PERCENT TOTAL ASBESTOS

Amosite: NO	Fiberglass: NO	Clay: YES
Chrysotile: YES	Rock wool: NO	Lime: YES
Crocidolite: NO	Cellulose: NO	Vermiculite: NO
Anthophyllite: NO	Synthetic: NO	Gangue suite:NO
Other: NO	Other: NO	Other: YES

NON-ASBESTOS FIBER, PERCENT TOTAL: NONE OBSERVED

NON-FIBROUS CONTENT: 80-90%

APPEARANCE: Heterogeneous, mixed grey transite

2 (REAR ENT. WALL, U.S.ARMY CORPS OF ENG'S.)

10-20% :PERCENT TOTAL ASBESTOS

Amosite: NO	Fiberglass: NO	Clay: YES
Chrysotile: YES	Rock wool: NO	Lime: YES
Crocidolite: NO	Cellulose: NO	Vermiculite: NO
Anthophyllite: NO	Synthetic: NO	Gangue suite:NO
Other: NO	Other: NO	Other: YES

NON-ASBESTOS FIBER, PERCENT TOTAL: NONE OBSERVED

NON-FIBROUS CONTENT: 80-90%

APPEARANCE: Heterogeneous, mixed grey transite

3 (BURNT BUILDING WALL, U.S.ARMY CORPS OF ENG'S.)

10-20% :PERCENT TOTAL ASBESTOS

Amosite: NO	Fiberglass: NO	Clay: YES
Chrysotile: YES	Rock wool: NO	Lime: YES
Crocidolite: NO	Cellulose: NO	Vermiculite: NO
Anthophyllite: NO	Synthetic: NO	Gangue suite:NO
Other: NO	Other: NO	Other: YES

NON-ASBESTOS FIBER, PERCENT TOTAL: NONE OBSERVED

NON-FIBROUS CONTENT: 80-90%

APPEARANCE: Heterogeneous, mixed grey transite

4 (RED FLOOR TILE, U.S.ARMY CORPS OF ENG'S.)

NONE OBSERVED :PERCENT TOTAL ASBESTOS

Amosite: NO	Fiberglass: NO	Clay: YES
Chrysotile: NO	Rock wool: NO	Lime: YES
Crocidolite: NO	Cellulose: NO	Vermiculite: NO
Anthophyllite: NO	Synthetic: NO	Gangue suite:NO
Other: NO	Other: NO	Other: YES

NON-ASBESTOS FIBER, PERCENT TOTAL: NONE OBSERVED

NON-FIBROUS CONTENT: 100%

APPEARANCE: Heterogeneous, nonfibrous red floor tile

5 (FURNACE ROOM PIPES, U.S.ARMY CORPS OF ENG'S.)

15-25% :PERCENT TOTAL ASBESTOS

Amosite: YES	Fiberglass: NO	Clay: YES
Chrysotile: NO	Rock wool: NO	Lime: YES
Crocidolite: YES	Cellulose: NO	Vermiculite: NO
Anthophyllite: NO	Synthetic: NO	Gangue suite:NO
Other: NO	Other: NO	Other: NO

NON-ASBESTOS FIBER, PERCENT TOTAL: NONE OBSERVED

NON-FIBROUS CONTENT: 75-85%

STERN ANALYTICAL LABORATORIES, BULK SAMPLE ASBESTOS ANALYSIS

CLIENT: U.S.ARMY CORPS OF ENG'S.

Analyzed by: ROBERTSON on: 11-Oct-85

Amount: 1-10 mg. Preparation: Macerated in n=1.590 index oil

Method: Polarized Light Microscopy (PLM) Det. limit=<0.1%

(FURNECE ROOM WATER TANK, U.S.ARMY CORPS OF ENG'S.)

30-90% :PERCENT TOTAL ASBESTOS

Amosite: NO

Fiberglass: NO

Clay: YES

Chrysotile: YES

Rock wool: NO

Lime: NO

Crocidolite: NO

Cellulose: NO

Vermiculite: NO

Anthophyllite: NO

Synthetic: NO

Gangue suite: YES

Other: NO

Other: NO

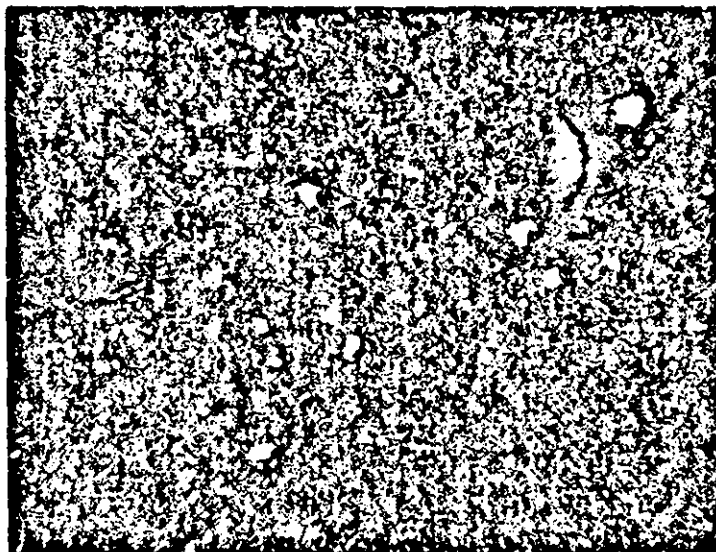
Other: NO

NON-ASBESTOS FIBER, PERCENT TOTAL: NONE OBSERVED

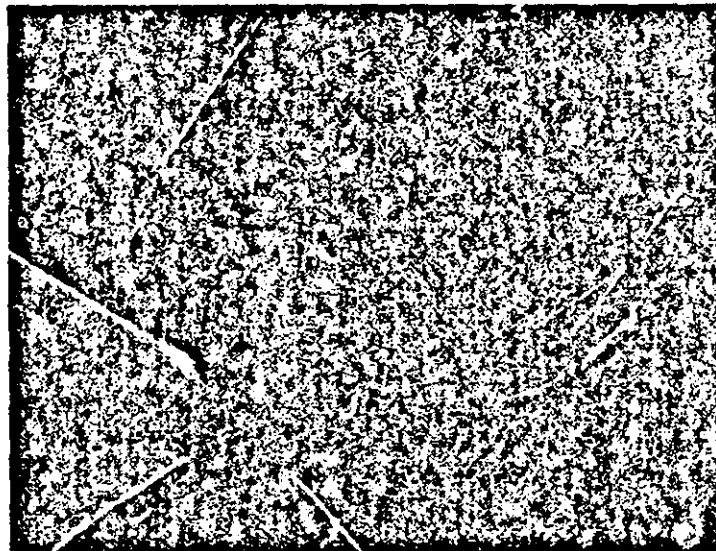
NON-FIBROUS CONTENT: 10-20%

APPEARANCE: Homogeneous, fibrous grey powder matte

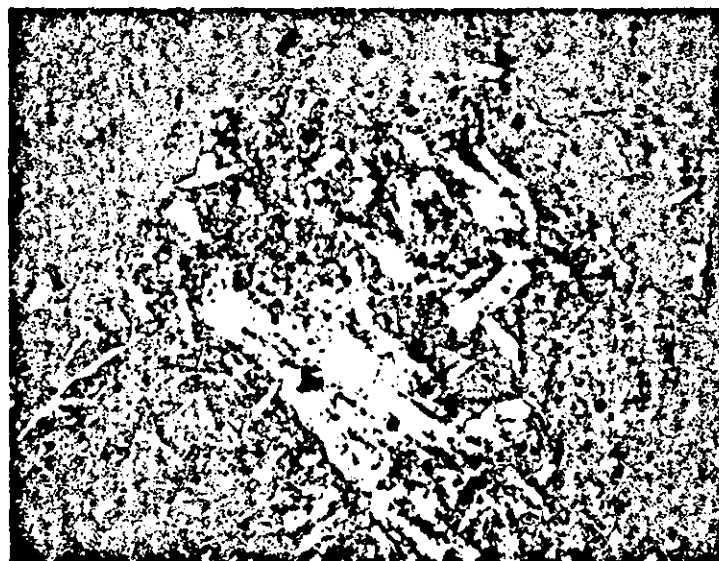
D SHOWS
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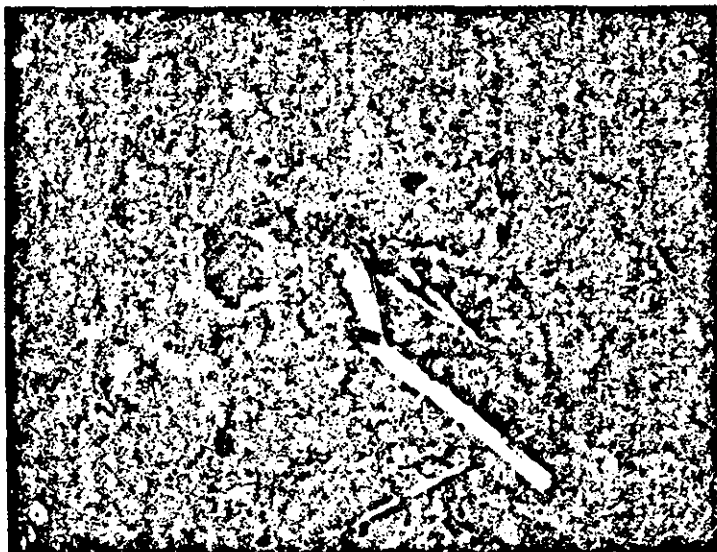
E SHOWS AMOSITE
& CROCIDOLITE
ASBESTOS IN
CLAY



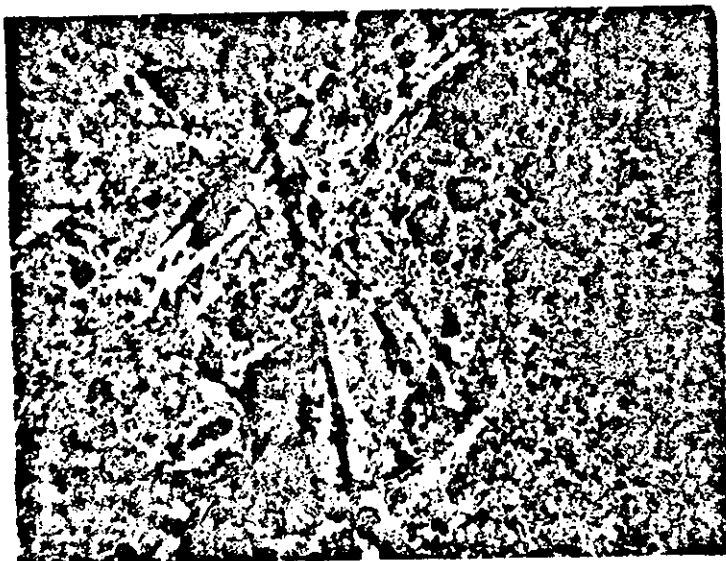
F SHOWS
CHRYCOTILE &
GANGUE MINERALS



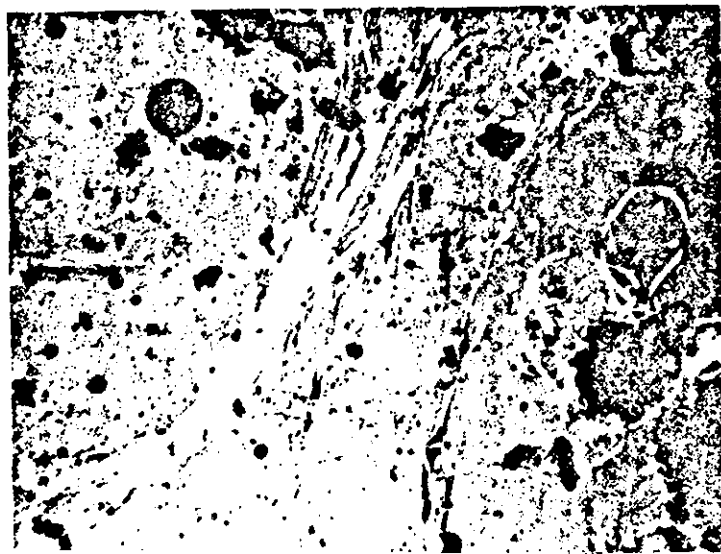
ALL PHOTOS 50X
MAG POLARS 80°



A SHOWS
CHRYSTILE
ASBESTOS BUNDLES



B SHOWS
CHRYSTILE &
NONFIBROUS
MINERALS



C SHOWS
CHRYSTILE
ASBESTOS
BUNDLES



EASTERN ANALYTICAL LABORATORIES, INC.
9 RANGEWAY ROAD BILLERICA, MA 01862

TELEPHONE (617) 872-5212

FRIABILITY OF ASBESTOS

SAMPLE	FRIABILITY
A Ceiling	Low
B Rear Ent. Wall	Low
C Wall Burnt Building	Low
D Floor Tiles	Low
E Furnace Pipes	High
F Furnace Tanks	High

ASBESTOS SAMPLES FROM SWANSEA NIKE SITE

- A. - Ceiling material, representative of all ceiling material ✓
throughout the building
- B. - Rear entrance, inside and Outside walls, representative of all
interior walls throughout the building
- C. - Wall material from burned building
- D. - Floor tiles, representative of all floor tile throughout
the building
- E. - Insulating material from pipes and ducts in furnace room
- F. - Insulating material from water tanks in furnace room



The Commonwealth of Massachusetts

Office of the Secretary of State
Michael Joseph Connolly, Secretary

Massachusetts Historical Commission
Valerie A. Talmage
Executive Director
State Historic Preservation Officer

September 30, 1985

Joseph Ignazio
Chief, Planning Division
Army Corps of Engineers
424 Trapelo Road
Waltham, MA 02254

RE: Defense Environmental Resource Project, Nike Site PR-29, Dighton/Swansea

Dear Mr. Ignazio:

My staff have reviewed materials which you submitted describing the proposed project referenced above. After review of the material, it has been determined that your proposal will not affect significant cultural, historical or archaeological resources.

This initial consultation to identify resources in the project area has been undertaken in accordance with 36CFR 800, the Advisory Council Regulations for the Protection of Cultural Resources. Since no significant resources were identified in the vicinity of the proposal, no further compliance with Council Procedures is required.

If you should have any questions, please contact Brona Simon of this office. Thank you for your cooperation.

Sincerely,

A handwritten signature in cursive script that reads "Valerie Talmage".

Valerie A. Talmage
Executive Director
State Historic Preservation Officer
Massachusetts Historical Commission

VAT/lis
cc:



DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
424 TRAPELO ROAD
WALTHAM, MASSACHUSETTS 02254

September 11, 1985

REPLY TO
ATTENTION OF
Planning Division
Impact Analysis Branch

Valerie A. Talmadge
Massachusetts Historical Commission
80 Boylston Street
Boston, Massachusetts 02116

Dear Ms. Talmadge:

This letter is to inform your staff of a proposed Defense Environmental Resource Project at the Control Area, Nike Site PR-29, Dighton/Swansea, Massachusetts. Enclosed are a MHC area form, photographs, and two maps detailing the project and site history.

The project proposes to remove the following structures: the Enlisted Men Barracks and Officers Quarters, three steel water tanks, the Maintenance/Workshop, the Basketball Court, the Interconnecting Corridor Building, Pads #1-3, the Guard House, two concrete pads, and an open manhole. Following the removal of these structures, the area will be graded and re-seeded with endemic vegetation.

The potential for prehistoric sites is essentially nil due to the extensive land modification during the construction of the Control Area and recent grading for the baseball fields by the CB Club, and the steep to moderate slope gradient.

Removal of the structures will have no impact on the historical significance of Nike Sites. Blue lines showing the layout and construction details of other New England Nike Control Areas are available at Fort Devens. The buildings are of standardized design and their placement on the Site is determined by the local topography.

We would appreciate your concurrence within thirty days as proscribed in 36 CFR800. If you should have any questions, please contact Richard Kanaski of this office at 647-8140.

Sincerely,

Joseph L. Ignazio
Chief, Planning Division

Enclosure

Architectural Significance

The Control site is located on a knob surrounded by wetlands associated with the Cole River. The site begins on the knob's crest and runs east on man-made terraces built or cut into the knob's eastern slope.

Structures are as follows:

1. Pads #1-3 served as footings for the facility's radar system. Each pad is set on a raised earthen platform (Pad #1 is 2-10 feet above a 45 degree slope; Pad #2 is 1-2 feet above the slope; and Pad #3 is 15-20 feet above a wetlands).
2. a Basketball Court.
3. the Maintenance/Workshop was constructed of wood and corrugated metal sheets. It's foundation consisted of concrete blocks and steel beams set in a grid pattern. Plywood sheets were laid on the steel beams to form the floor.
4. three steel water tanks.
5. the other structures were made of concrete block (Interconnecting Corridor Building, Engine Generator Building, Guard House, Administration, Recreation, and Storage Building, Mess Hall, Enlisted Men Barracks and Officers' Quarters, Building #1 and Water Pumping Station).
6. assorted concrete pads. and
7. roads and sidewalks.

No construction plans nor blue lines were available for this particular Control Area. Examination of Control Areas at other Nike Sites demonstrated a standardization of building design and functions. Site layouts were modified only by local topography.

Historical Significance

This site was the Control Area for Nike Site PR-29. It was obtained by the Department of Defense (DOD) in 1955 from Antone and Cora Silvia. Coordination and direction of activities at the missile/launcher site (Dighton) originated here.

During the mid-50's, a number of Nike Ajax batteries were constructed nationwide to protect strategic and industrial areas, i.e. Boston, Providence, Hartford, New London, Bridgeport, and Limestone. In 1960, the launcher and radar facilities were modified to accommodate the Nike Hercules. The Nike Defense System was deemed obsolete by the mid-1960's and deactivated.

The Department of Defense reported the Control Area as excess (Report of Excess No. NED-131) to the General Service Administration in 1964. The Town of Swansea, the current owner, obtained the site directly from the U.S. Government in 1965. Since the site's acquisition, the town has permitted several groups to use the area; a Youth Group - Enlisted Men Barracks and Officers' Quarters; Battleship Cove CB Club, Inc. - Administration, Recreation and Storage Buildings; a local Disabled Veterans Association - Mess Hall; Cable Television - construction of a microwave relay tower. The Youth Group no longer uses the site, as their building was gutted by fire.

Future plans for utilization of the site center around recreational purposes. An area west of the basketball court has been graded by the CB Club for the construction of a baseball field.

Bibliography & References

McCabe, Maureen

1984 Findings and Determination of DOD Responsibility: Nike Site 29, Dighton/Swansea, Massachusetts. Project No. D01MA002714.

Parkman, Aubrey

1978 Army Engineers in New England; The Military and Civil Works of the Corps of Engineers in New England. 1775-1975. United States Army Corps of Engineers, New England Division (see pgs 151-153).

Blue Lines

United States Army

Directorate of Engineering and Housing

Engineering Plans and Specifications

Bldg. 1622

Fort Devens, Massachusetts

Ziobro, Michael (Point of Contact)

Swansea Town Engineer

Town Hall

Swansea, Massachusetts



United States Department of the Interior

FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
P.O. BOX 1518
CONCORD, NEW HAMPSHIRE 03301

JUL 26 1985

Mr. Joseph L. Ignazio
Chief, Planning Division
U.S. Army Corps of Engineers
424 Trapelo Road
Waltham, MA 02254

Dear Mr. Ignazio:


This responds to your July 12, 1985 request for information on the presence of Federally listed and proposed endangered or threatened species in conjunction with proposed Defense Environmental Restoration Projects in Dighton/Swansea and Hingham, Massachusetts.

Our review shows that except for occasional transient individuals, no Federally listed or proposed species under our jurisdiction are known to exist in the project impact area. Therefore, no Biological Assessment or further consultation is required with us under Section 7 of the Endangered Species Act. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered.

This response relates only to endangered species under our jurisdiction. It does not address other legislation or our concerns under the Fish and Wildlife Coordination Act.

A list of Federally designated endangered and threatened species in Massachusetts is enclosed for your information. Thank you for your cooperation and please contact us if we can be of further assistance.

Sincerely yours,


Gordon E. Beckett
Supervisor
New England Area

Enclosure

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES
IN MASSACHUSETTS

Common Name	Scientific Name	Status	Distribution
<u>FISHES:</u>			
Sturgeon, shortnose*	<u>Acipenser brevirostrum</u>	E	Connecticut River and Atlantic Coastal waters
<u>REPTILES:</u>			
Turtle, green*	<u>Chelonia mydas</u>	T	Oceanic straggler in Southern New England
Turtle, hawksbill*	<u>Eretmochelys imbricata</u>	E	Oceanic straggler in Southern New England
Turtle, leatherback*	<u>Dermochelys coriacea</u>	E	Oceanic summer resident
Turtle, loggerhead*	<u>Caretta caretta</u>	T	Oceanic summer resident
Turtle, Atlantic ridley*	<u>Lepidochelys kempii</u>	E	Oceanic summer resident
Turtle, Plymouth red- bellied	<u>Chrysemys rubriventris</u> <u>bangsi</u>	E	Plymouth and Dukes Counties
<u>BIRDS:</u>			
Eagle, bald	<u>Haliaeetus leucocephalus</u>	E	Entire state
Falcon, American peregrine	<u>Falco peregrinus anatum</u>	E	Entire state - re-establishment to former breeding range in progress
Falcon, Arctic peregrine	<u>Falco peregrinus tundrius</u>	E	Entire state Migratory - no nesting
<u>MAMMALS:</u>			
Cougar, eastern	<u>Felis concolor cougar</u>	E	Entire state - may be extinct
Whale, blue*	<u>Balaenoptera musculus</u>	E	Oceanic
Whale, finback*	<u>Balaenoptera physalus</u>	E	Oceanic
Whale, humpback*	<u>Megaptera novaeangliae</u>	E	Oceanic
Whale, right*	<u>Eubalaena</u> spp. (all species)	E	Oceanic
Whale, sei*	<u>Balaenoptera borealis</u>	E	Oceanic
Whale, sperm*	<u>Physeter catodon</u>	E	Oceanic
<u>MOLLUSKS:</u>			
NONE			
<u>PLANTS:</u>			
Small Whorled Pogonia	<u>Isotria meleoloides</u>	E	Hampshire, Essex Counties

* Except for sea turtle nesting habitat, principal responsibility for these species is vested with the National Marine Fisheries Service



Massachusetts Natural Heritage Program

July 24, 1985

Joseph Ignazio, Planning Division
New England Division
Army Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02254

Re: Dighton/Swansea
and Hingham projects

Dear Mr. Ignazio:

As you requested, the Massachusetts Natural Heritage Program (MNHP) has reviewed the proposed sites for building demolitions off Sharp's Lott Road in Swansea, and at Bare Cove Park. At this time, we are not aware of any rare plant or animal species populations or ecologically significant natural communities that would be adversely affected by these projects.

Thank you for consulting the MNHP, and please feel free to contact us with any questions. Please note that our inventory expands with ongoing field work and research, so that further information on this area may become available in the future.

Yours sincerely,

Alison Sanders-Fleming
Environmental Reviewer

ASF: amc